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I.—THE COLOR-SYSTEM OF VERGIL.¹

Charles Lamb used to say of himself that '*darkness was his hell*.' In the genius of this man there is a flavor of bright and sparkling childhood; and in making hell consist of darkness, he uttered a feeling that is common both to all children and to all nations in the childlike stage of their growth. Thus our *hell* itself, the Old Norse *hel*, the Gothic *halja*, is probably from the same root as the Greek *κελαινός* (black), personified as *Κήρ*, the goddess of death. So, in the very foundations of Indo-germanic speech, darkness is one with death; light is at once the essence and the symbol of physical life.

This childlike identification of *darkness* with *hell* came up, as we saw in Charles Lamb's case, from the first impressions of his childhood into the ripeness of the sensitive, thoughtful man. So, with the Greeks, the conception of darkness as the awfulness of death, the conception of life as the clear effulgence of light, lasted over, as an abiding element of their imagination, from primitive days into the consummate perfection of their poetry. In Euripides, for example, the dying Alkestis, as she feels the approach of death, cries out:

σκοτία δ' ἐπ' ὅσσοις νύξ ἐφέρπει (269).

As she prays for long life for the children that she is leaving, it is:

χαίροντες, ὦ τέκνα, τόδε φάος ὀρώπων (272).

As her women pray for her parting soul, her death is for them:

τὸν ἀνάλιον οἶκον οἰκετεύειν (437);

¹ This paper was prepared for the Philological Association of the Johns Hopkins University, and read before that body on the 14th of April, 1882.

and the last farewell of the dying woman, as she goes down, willing but awe-stricken, into the Valley of the Shadow, is

Ἄλγε καὶ φάος ἀμέρας.

So too, in Sophokles, the last words of Ajax, before he falls upon his sword, are

σὲ δ' ὦ φαεινῆς ἡμέρας τὸ νῦν σέλας
καὶ τὸν διφρευτὴν Ἥλιον προσενέπω (856).

Thus, here and in countless other passages of like feeling, there comes out a law of the Greek mind, a fundamental fact of the Greek imagination at work: darkness is for the Greek the physical sign and expression of death; sunlight, in its white glow, in its shining, uncolored radiance, is the physical sign, the essence and expression of life.

In passing, however, from the poetic atmosphere of the Greeks into the Italians', there is a further progress to be marked in this conception of light as the essence, the metonym of life. See, for example, how the great Italian poet describes the growing horror of the scenes through which Aeneas went down from the sunlit life of man into the regions of the dead—

rebus nox abstulit atra colorem (Aen. VI 272).

Here it is no longer mere light, it is color that emerges as the sign of life; and it is the loss of color that is the sign of death. To the eyes, to the minds, to the imaginations of the Greeks, the pure light of the sun, falling in undissolved whiteness, piercing, penetrating, almost blinding in its sharp etching of shadow and illumination, had been the glory of the physical universe, the charm of life, the symbol of all intelligence, the speech, as it were, and the revelation of the Godhead itself. Form, sharply defined in the black and white of the uncolored sunlight, was for Greek imaginations the type of the highest beauty. But the imagination of the Italians comes out in their best poetry as something less plastic than the Greeks', and more sensuous: light pours through the gorgeous realms of their poetic world, no longer white and undissolved, but broken into prismatic splendors of innumerable tints, reflected and refracted into all combinations of pure and of blended colors. Form is no longer so all-sufficing, so correct, so sharply defined as in the black and white, the lights and shadows, of the Greek ideals. But form illumined by colored lights, form losing the sharpness of its outlines in the tender vagueness of colors that melt and blend

with one another, such is the highest beauty of the world as the world was seen by Italian eyes and painted by Italian poets.

Such was the Italian, such above all was Vergil's conception of the part that color, as distinguished from pure light, plays in the beauty of the universe. For him it was color that made the glory of life; it was the withdrawing of color that made the dreadfulness of the dead man's world. For him, however, this separation of color from light, this glorification of color at the expense of light, was accomplished only by the stress of a grand imagination. But for us, strange to say, we can find in the resources of modern chemistry the means of changing Vergil's imagination into scientific fact; we can separate light from color, and light up a dismal world of horrors from which all color is banished. We can see before us in the laboratory the very scene that Vergil makes Aeneas behold as he goes down alive in Hell. The process and the result of this wonderful experiment are well described in Rood's *Modern Chromatics*, pp. 102-3.

From the witnessing of such an experiment we shall come forth persuaded for ever of the fundamental truth of Vergil's conception: the glory of the physical universe consists, above all, in the diffusion of color; and the poetic conception and the presentation of life before the sensuous imagination are to be attained in their highest effects only by the management and utilization of color.

Among the great poets of Italy, the poets that saw and lived in color rather than in pure light the chief beauty of the universe, Vergil is the greatest. He made, as I shall show you, a prodigious use of color in his own compositions. He used a rich variety of color-terms with a delicate precision of meaning; and by his example he fixed the use of color-terms and defined the range of color-impressions for the poetic literature of his race. I wish, therefore, so far as I can, to lay before you the color-system of this great master of poetry. I wish to explain the color-terms that he uses, and to arrange and analyze the color-impression that he aims to create. In conclusion, by comparing the results thus obtained from Vergil with the results obtained by other scholars from Homer, I wish to show how far Vergil had advanced beyond Homer, both in his appreciation of color and in his precision of expression for color. By such a comparison, it seems to me that we shall reach a fair measure of the progress made by civilized mankind, within that thousand years, in the adaptation of human language to the color-sensations of the eye.

The first chromatic impression that the mind gets from reading Vergil is the impression of his delicate and loving perception of color, and of the splendid richness and variety of his color-effects. All through his poems, as well the poems of his sensuous youth as the poems of his sobered maturity, whether he is dealing with external nature or with human life, his verses are aglow with an iridescent radiance of color. Sometimes it is still-life, a flower or a fruit or a vegetable, pictured with delicate fidelity to nature's coloring. Sometimes it is a living animal, bird or snake, gorgeous with bright plumage or with lustrous scales. Sometimes it is the human figure itself, maiden or warrior, luminous with richness of flesh-tints or splendid in garments of many colors. Sometimes it is a landscape, or a sky-effect, cool with the green light of the forest or glowing with all the radiance of the sunset. Turn where you will, there is always color imprisoned in the sonorous beauty of the verse, until the gem-like Vergilian phrases seem to be alive inside with as many shifting hues as the beryl-stone of the poet. In the *Aeneid*, for example, 8, 22, he tells us how, in a basin fed from the brass lips of a fountain, the yellow light, flashing from the brass, is reflected from the water and sent flying in tremulous patches amid the carved work of the ceiling. In the second *Eclogue*, v. 50, the white-armed Naid lights up the heaps of dark blue-berries with yellow clusters of marigolds. In the *Copa*, v. 20, there is the grouping of wreaths of yellow weld with purple roses, and brown chesnuts side by side with red-cheeked apples, and blood-red mulberries piled up with purple grapes and blue egg-plants. In one exquisite poem of the *Catalecta*, VI 10, there stands like a delicate vision of antique beauty the statue of Amor carved in white marble with wings of many-colored feathers. Rising from still-life to human life, he brings before us Aeneas himself (IV 261): his sword was starred over with tawny jasper, and the cloak that hung from his shoulders blazed with Tyrian purple, and the threads of the purple were held apart by slender threads of gold. So Chloreus (XI 771) shone with red and purple, and a gold bow hung from his shoulder, and his cloak was saffron-dyed and his leggings were embroidered with many colors. And in landscape, as he paints the site of Venice before Venice arose, his picture seems to glow with all the deep splendors of the Venetian painters: the Po through fat fields pours its yellow waters into a purple sea, *Georg.* 4, 372. And again, with what soft tenderness of color he pictures the fountain flowing from the dark mouth of the grotto: here there reigned the pinkness of

spring; here the earth brought forth her flowers, and a white poplar hung over the mouth of the cavern, Ecl. 9, 40. And, in another place, as the boats full of armed men glide along the forest-river, the green woods gaze with amazement upon the shining shields of warriors and upon the brightly painted boats gleaming back reflected from the quiet waters, VIII 92. And at sunrise, the sea grows red beneath the level rays, and the yellow Dawn rides up the sky in her rosy chariot, VII 25. Oftenest, however, of all he comes back to the richest of all color-effects, to the rainbow, *mille coloribus arcum*, V 609. Art and science meet in the memorable description of Iris, flying dew-bespangled across the sky on saffron-colored wings, and drawing after her, as she faces the sun, a trail of a thousand colors, IV 700-1. Thus, in small things as in great, the visions of physical life and of ideal beauty that floated in the imagination of Vergil were visions as splendid in color, as thoroughly Italian in sensuous color-effects, as ever came in after-centuries to fix themselves upon the canvases of a Giorgione or a Veronese or a Titian.

At this point it will be well for us, before we go further, to settle in our minds the conception that lay for the ancient mind in the word *color*. For, in our modern speech, half unconsciously, we gather in from the results of science the scientific conception of things and the scientific meaning of words. But, if we deceive ourselves into applying to ancient words our modern scientific conceptions, we misunderstand the thinking of antiquity and bring confusion and disorder into all their poetry. For us moderns, under the teaching of Young and of Helmholtz, color is a subjective sensation produced upon three sets of nerves within the eye by three kinds of waves that differ in their length. When the longest wave strikes upon the nerves that are fitted to receive its impression, we see red; when the shortest wave strikes upon its nerves, we see violet; when waves of the intermediate length strike upon their nerves, we see green. And when waves of different lengths fall upon our eyes commingled, we see colors such as yellows, blues, purples, etc., made up of violet, green and red. A nobler theory was never devised by the wit of man to explain the phenomena of nature: the theory, for my part, takes already its place in discovered truth as a sublime law of nature, most exquisite in its adaptation of wave to nerve. We must, indeed, keep this theory to explain the facts of color as they arise in the world; but in dealing with the color-terms of ancient languages and in reconstructing the

color-system of ancient poets, we must lay this theory aside and force ourselves back into the childlike conceptions that arose in the childhood of mankind. The noun *color* goes back to the root *cal*, I. G. *skal* or *skar*, meaning to *cover*, to *conceal*. It is akin to the verb *celare* (hide) and *occulere* (cover). "*Die Sprache*," says Prof. Curtius, p. 111, "*fasst die Farbe als Decke auf*." *Color* in the conception of Indo-germanic language is the *cover* of things. So in Greek, *χρῶμα* (*color*) is from the same root as *χρῶς* (*skin*). In the I. G. languages, the color of a thing is the cover or skin that overlies or hides the true substance. From this conception, however false it may be in science, we have to make our start in explaining the color-terms of ancient poetry. If we apply it to Vergil, we shall find the term *color* used in several different senses. In its widest sense, Vergil uses *color* to denote the colored skin or cover that overlies all visible objects, *e. g.*

rebus nox abstulit atra colorem (VI 272).

Here *color* is a kind of skin that may be, as it were, peeled off. By metaphor drawn from this use, *color* denotes the surface as opposed to the substance, the appearance as opposed to the reality of things, *e. g.*

nimum ne crede colori (Ecl. II 17).

Next, by a natural transition, *color* denotes the dye-stuff used to give color to a foreign substance:

varios discet mentiri lana colores (Ecl. IV 42).

Then it may denote the dark spots lying on the surface of a bright body; so of the sun he says:

ipsius in vultu varios errare colores (Georg. I 452).

Then *color* is narrowed down to denote the warm colors, reds, browns, etc., even when darkened almost to black. So in speaking of color as test of the soil's fertility, he says:

promptum est praediscere, quis cui color (Gg. II 256)

coloratis amnis devexus ab Indis (Gg. 4, 293), (brown races, colored people).

And of the purpling grape:

duceret apricis in collibus uva colorem (Ecl. IX 49).

Then it denotes the same warm colors illuminated toward white. So he says of the woodpecker:

sparsit coloribus alas (Aen. VII 191).

And, by a special narrowing, *color* denotes the exquisite tints of red and white, rose and lily commingled, that make the complexion of a beautiful girl :

Indum sanguineo veluti violaverit ostro
Si quis ebur, aut mixta rubent ubi lilia multa
Alba rosa : *tales virgo dabat ore colores* (Aen. XII 67).

Finally, by a still further mingling of white, *color* comes to denote the palest yellow, almost white itself; so he says of horses

color deterrimus albis | et gilvo (Gg. III 82).

Vergil, you will remember, in speaking of the rainbow, called it *mille coloribus arcam*. Only by a bold guess, of course, by the lucky divination of genius, could he have given as one thousand the number of distinct colors in the solar spectrum. Yet, strange to say, Aubert has proved by his famous experiments and calculations (cf. Rood, p. 40), that in the solar spectrum, as spread out by artificial means in the laboratory or by natural means in the gorgeousness of the perfect rainbow, the unaided human eye can see and distinguish 1000 different colors. In addition, however, we must bear in mind that one of the colors commonest both in art and in nature, the purple, is not seen at all in the solar spectrum. Hence, in order to get the number of distinct colors that the eye can see in nature, to the 1000 hues of the perfect spectrum we must add on about 100 more for the full and the graded hues of purple. Let us assume, then, that, in nature seen under ordinary daylight, there are for the healthy human eye about 1100 distinguishable colors. By different degrees of white illumination, this number, as Aubert proves, can easily be carried up to 100,000 tints; and by illuminating the spectrum by colored light, red, green, violet, etc., the number of tints passes up into incalculable millions, into a mathematical infinity of possible colors. But let us keep to the 1100 colors as the norm for practical work.

Given, then, these 1100 colors that can be seen and known by the human eye, it is the task of human speech to furnish expression more or less adequate for this number of color-sensations. The power of the various languages to do this, a power that varies from the rude inadequacy of barbarous dialects up to the subtle discriminations and overflowing wealth of the most perfect languages, is no bad measure of the perfection of language for the expression of human needs. In English, for example, I find that Roget has given the number at 102. The power of the modern French,

however, in the apt and clear expression of color, is recognized by philologists as one of the most marvellous facts of that marvellously rich and picturesque language, and is perhaps the highest perfection of color-expression ever attained by human speech. The number of color-terms in common use in modern French is said to be not much short of 500. How, now, does the Latin of Vergil stand in this comparison? Over what number of color-terms does the genius of the poet bear sway, in order to find linguistic expression for the beauties of color that he discovered in nature? How many, as it were, and what are the pigments that lie upon the palette of this exquisite painter of the world for the rendering of all his color impressions? A friend of Alma Tadema (Collier, *Primer of Art*, p. 55) has lately told us that this exquisite master of color reproduces his color-impressions of the antique world by a palette of 12 colors. As compared with this dozen real pigments of Alma Tadema, the palette of Vergil's vocabulary contains 27 terms of high color—rather more than twice as many. But, as I shall prove hereafter, the defects of his language compel Vergil to use for the expression of definite color many terms for white and black and gray, terms which in their scientific sense are not color-terms at all, but which in their poetic use are often the expression of real and powerful color, as seen under excess and deficiency of illumination. Of such terms for black, white and gray, there are 15 in Vergil's vocabulary; and if these 15 be added to the 27 terms of pure color, we have 42 pigments in the color-system of the Vergilian poetry. Compare now this number of 42 color-terms with the number, fixed above, of 1100 colors to be expressed by them. From the bare statement of this rough numerical relation, 42 to 1100, there follows one consequence of prime importance for the understanding of Vergil's color-system. Each color-term of the 42 must cover, on the average, the expression of 26 closely allied tints. For each color-term, therefore, we must seek to find one precise color, as the norm, and, as it were, the center or axis of its chromatic power. This, if fixed by the color of some object in physical nature, unchanged and unchangeable, will serve us as the natural or physical standard of that particular color-term. For *sanguineus*, e. g. we shall have *sanguis*. But on both sides of that physical standard we must expect to find a group of allied tints, expressed, indeed, by the same color-term, but grading off tint by tint, up and down the vertical spectrum, toward the color-terms that lie nearest. In *caeruleus*, for example, there must lie not only the

meaning of pure blue, as found in *caelum*, but also on both sides of blue a large number of distinct tints, closely allied to blue, but grading off, tint by tint, on the upper side toward green, and on the lower side toward violet. Here is the natural infirmity of language; no language, however rich, however precise, can ever be so developed as to cover the absolute infinitude of man's perceptions and sensations. Every human soul in its efforts at utterance is doomed to everlasting failure; the finite expression cannot be so stretched as to cover the infinite realities of things.

In understanding Vergil's poetry, therefore, we are forced to give to each color-term that he uses a somewhat widened range of tint-variation. Bearing this in mind, let us now arrange the color-terms of Vergil in their allied groups, according to proximity of tint in the spectrum of nature.

Following the theory of Helmholtz, a theory that I accept as a demonstration, I shall give first the three primary groups of red, green and violet; then the group that lies between red and green; then the group that lies between green and violet; lastly, the tints of so-called purples and blacks and grays and whites that, although occurring in nature, do not occur within the spectrum itself. But, in giving this catalogue of Vergil's color-terms, I wish to do more than simply to mark the existence of each particular color in Vergil's great picture of the universe. I wish to give a quantitative estimate of Vergil's use of the different colors. If we can fix the number of times that Vergil makes use of each color, we shall be able to discover his color-preferences, and to find out how far the color-sense of Vergil corresponds with the diffusion of color in nature; that is, how far the poetic presentation agrees with the realities of things. The color-sense of every great artist is an important element of his genius, a strongly marked characteristic of his artistic manner and range of perception. In painting, for example, it is obvious to all that love the art, to all that have striven to understand the work of any great man, that to the eye and to the taste of every original painter certain groups and ranges of color are distinctly preferable to certain others. These preferences and partialities are so strongly marked in each man's works as to be a striking characteristic of his genius. Amid the vast infinities of nature's coloring, no single eye is capable of finding equal joy in all the colors that make up the color-effects of the universe; no genius for coloring is so vast and so catholic as to be able to take in and reproduce in an equable manner all the coloring of nature. Hence, to use familiar examples,

the splendid genius of Turner and the calmer, truer genius of Ruisdael are almost complementary to each other in the preference shown for the warm colors and for the cool colors of the spectrum, for the sunset glories and for the forest-tinted greens of the landscape. The sombre, brownish magnificence of Piloty's *Death of Wallenstein* differs as much from the glowing splendors of Paul Veronese's banqueting-scenes as if the two painters had looked out on different worlds of color.

As it is in painting, so it is in poetry. To each poet's eyes the world puts on a different aspect. Each poet, if we watch him at his work of representing nature as he sees it, will show a preference for certain ranges of color and a distaste for certain others. Thus, in studying the color-system of Vergil by its quantitative use of color-terms, we shall be able, in a general way, to see with his eyes the aspect of the physical universe, to learn his likes and his dislikes in color-effects, and to understand how far his genius conforms to the realities of nature in the diffusion and prevalence of color as an element of beauty.

I. Red group of color-terms.—*Ruber*, used 36 times; *rutilus*, 5; *sanguineus*, 14; *cruentus*, 2; *sandix*, 1; *minium*, 2; *ferrugo*, 5; *roseus*, 12. Total of red group 77.

II. Green group of color-terms.—*Viridis*, used 63 times; *vitreus*, 1; *hyalus*, 1. Total of green group 65.

III. Violet group of color-terms.—None used with exclusive and absolute precision of tint.

IV. Group of color-terms between red and green.—*Igneus* used once; *spadix*, 1; *fulvus*, 20; *flavus*, 19; *croceus*, 16; *luteus*, 5; *aurum*, 33; *gilvus*, 1; *cereus*, 1. Total of red-green group 97.

V. Group of color-terms between green and violet.—*Pallidus* used 24 times; *lividus*, 2; *caeruleus*, 31. Total group of green-violet color-terms 57.

VI. Outside group of color-terms not belonging in spectrum, but formed by composition. *Purpureus* used 33 times, *punicus* 7, *ostrum* 11, *murex* 3; red and blue 54. *Albus* 38, *candidus* 37, *niveus* 18, *decolor* 1, *argenteus* 2, *lacteus* 5, *marmoreus* 6; formed by blending, more or less perfect, of complementary colors 107. *Canus* 13, *glaucus* 9, *ater* 72, *fuscus* 4, *fumeus* 1, *niger* 41, *pullus* 1, *piceus* 2; formed by the darkening, more or less complete, of each color 143.

Thus, in Vergil, if we include the so-called blacks, whites and grays, there are 600 uses of color-effect; but, if we leave out the

blacks, whites and grays, there are 350 uses of bright color in the poems.

Later on we shall compare this diffusion of the different colors in Vergil's poetry with the actual diffusion of the same colors in the physical universe, and work out some interesting results. But, before this comparison can be made, we must find out some philological system, some method of hermeneutics, by which we can fix more precisely the color-significance of each color-term itself.

The color of anything in nature, whose color is visible to the human eye in any given position, depends on at least three elements that are always present, the three so-called *constants of color*, cf. Rood, ch. III, and pp. 209-10. Think, for example, of a mass of green leaves hanging as foliage upon a tree. The color of that foliage will depend

1st, on the wave-length of the waves of light reflected from those leaves into your eyes. That is *hue*, absolute color, as element in color-perception.

2d, on the amount of green light that is reflected from the leaves into your eyes. That is the *brightness* or *luminosity* of the color as an element in the color-impression.

3d, on the amount of white light that is mingled with the green light in the final color-impression. This is the *purity* of the color. If all white light could be removed, a thing impossible to do, the color would be absolutely pure; as the amount of white light is increased, the purity becomes less and less. At last, by excess of white light, all color may be made to vanish into whiteness.

From the clear understanding of these three elements of color, you will see that there can be no objective fixedness in our color-impression of any visible object. The hue may abide the same, but accidental variations in purity or in luminosity may make the color-impression vary in ever-shifting tints from what approaches blackness up to what approaches whiteness. As the distance varies, as the laws of aerial perspective work their will upon objects more near or more remote, dark objects become lighter when afar off, light objects become more vivid when near by. Now the color-terms of the poet, like the pigments of the painter, are not meant to define the absolute color of things; the mere wave-lengths of the waves of light that each thing reflects are not to be defined in the language of art. The poet like the painter records not what the thing is in itself, but what the thing seems to be in his eyes under all the circumstances that surround it. From this it comes to pass that

objects which seem to us altogether different in color are often presented by the poet under the same color-term. Thus, under process of darkening, from defect of luminosity, the green of the fresh-cut foliage and the red of flowing blood are both called by Vergil *ater*, *ater sanguis*, Gg. III 507, and *frondibus atris*, Aen. VI 215. And again, under variations of purity, by contrast with different surrounding colors, the color of the same object may be expressed by two different color-terms. For example, in the same book of the Aeneid, V 309 and 494, the foliage of the olive is at one time *viridis*, at another *fulva*. Unless you can make plain to your minds the variations in our color-perceptions that are produced by variations in luminosity and purity, above all the variations produced by contrast, you can never hope to understand the use of coloring in painting nor of color-terms in poetry. Who, for example, that has seen the blue-green waves of the ocean blanch into whiteness under the red light of the setting or the rising sun can fail to understand why Vergil calls the sea *marmoreum aequor*? The poet's eyes saw in nature and painted in language the exact effect which is produced in the laboratory by throwing red light on a blue-green surface, Rood, p. 153.

From the point that we have reached we can come back to the practical problem that color-terms present to the mind of the philologist. If color be a thing so variable and so unfixed, by what means known to philology are we to fix the meaning, and to understand the use, in any ancient writer, say in Vergil, of the color-terms that he employs? Upon this problem as it arises in Greek philology, the minds of many Greek philologists have been of late keenly directed. But in their investigations, full of learning and full of charm as they are, it seems to me that there have been such grave mistakes of method as to rob their conclusions of permanent and solid value. I am not without hope, therefore, that by examining the color-system of a single great poet, especially of one so fond of color and so versed in color as Vergil, we may be able to learn some facts, perhaps even to establish some laws of interpretation, that may be of use in defining the color-terms of other ancient writers and of other ancient languages, above all, where we need it most, in the Greek. My own conclusion is that, in order to understand the meaning of any given color-term, we must work up to one final result by five successive stages of methodical investigation.

1st. The etymology of the color-term must be studied. If we

can trace the word backward to its root and discover and compare its cognates, we shall find the fundamental conception, the concrete significance, that underlies its use, *e. g.* the derivation of *gilvus* from the I. G. root *gar* (shine, bright) and its connection with *bilis* in Latin, with *γελεῖν* (= *λάμπειν*, *ἀνθεῖν* Hesych.) and figuratively *γελᾶν* in Greek, with *yellow* in English, are full of help.

2d. The physical standard of the color must be fixed. We must try to find in nature some fixed and permanent standard of the color-term in question, some visible object that may fix the color for our eyes, and make us able to visualize, as it were, the color-impression of the ancient poet, *e. g.* the splendid pure red of *sandix* is fixed for ever in the mind of one that has ever looked upon the mineral (*realgar*, red sulphuret of arsenic) in which it occurs.

3d. The extension of the given color up and down the gamut of the spectrum must be determined, *e. g.* *caeruleus* running up almost to green and running down almost to violet.

4th. The variation of the color under different degrees of purity and luminosity must be determined, *e. g.* *purpureus* may lighten up into the softest shades of pink, or darken until it loses itself in a kind of violet blackness.

5th. The variation of each color by contrast, in combination with other colors, must be studied; and it will explain the most violent use of the color-terms, *e. g.* a wreath of olive leaves around a head of black or brown hair will seem yellowish and be called *fulvus*; but around a head of yellow hair will seem intensely green and be called *viridis*.

In separate essays, I hope to publish, so far as Vergil is concerned, my determination of his various color-terms according to this five-fold method of investigation. For the present I cannot do more than give in the fewest words the etymology and physical standard of each term.

Ruber. I. G. *rudh*, name of blood and of planet Mars, cognate with *ῥοδόρρος*, *red*, *ruddy*, etc. Physical standard, the color of the crab when cooked, *rubentes ure foco caneros*. Gg. 4, 47.

Rutilus. I. G. *rudh*, akin to *ruber*, with red verging toward yellow. Physical standard, the splendid color of the Italian bee, *rutilis clarus squamis*. Gg. 4, 93.

Sanguineus, from *sanguis*. I. G. *sag* (drop, flow), cf. Latin *sucus*. Physical standard, color of fresh blood dropping from wound, blood itself, mulberry.

Cruentus, from *cruor*. I. G. *kru* (hard), cf. *crudelis*, κρύος, κρίσταλλος, etc., Eng. *raw*. Physical standard, *cruor*, blood hardening and darkening after it has left the body. Myrtle-berries show very dark red, *cruenta myrta*. Gg. 1, 306.

Sandix, Gr. σάνδυξ. Etymology unknown to me. Physical standard, *realgar*, red sulphuret of arsenic, used as dye-stuff. Ecl. 4, 45.

Minium. Etymology unknown to me. It is said to be an Iberian word. Physical standard, cinnabar, vermilion, used as rouge. Ecl. 10, 27.

Ferrugo, iron rust, from *ferrum*. Physical standard fixed in nature. The color of the larkspur, dark red, rather dull, *ferrugineus hyacinthus*. Gg. 4, 183.

✓ *Roseus*, from *rosa*, probably of Semitic origin. Physical standard, rose-red with blue tinge, light or dark, red lips of beautiful women. Aen. 9, 5, etc.

Viridis. I. G. *ghvar*, *ghar* (sprout, grow). Physical standard, young leaves of trees, young grasses.

Vitreus, from *vitrum* (glass). I. G. *vid* (to see). Physical standard, greenish antique glass, of transparent green, *vitrea Fucinus nuda*. Aen. 7, 759.

Hyalus, Gr. ὑαλος (raindrop, glass). I. G. *su* (drop). Physical standard, glass of deep green color, *hyali saturo fucata colore*. Gg. 4, 335.

Igneus, from *ignis*. I. G. *ag* (move, flicker). Physical standard, fiery red of sun presaging wind-storm, (Sol) *igneus Euros*. Gg. 1, 453.

Spadix, Gr. σπάδιξ, date-palm, name from Semitic. Physical standard, date, rich red brown, used of bay horse, *honesti spadices*. Gg. 3, 82.

✓ *Flavus*, root *ghar* (grow, sprout), cf. *viridis*. Physical standard, ripening grain, Tiber at Rome, according to Fronto's definition made up of green and red raised by white, *paullatim flavescet campus arista*. Ecl. 4, 28.

Fulvus, root *ghar* (grow, sprout), cf. *viridis* and *flavus*. Physical standard, skin of lion, plumes of eagle, according to Fronto's definition, the same as *flavus*, with white left out, *fulvus Jovis ales*. Aen. 12, 247.

✓ *Croceus*, from *crocus* (saffron), Semitic word. Physical standard, saffron itself, used as dye-stuff, yellow tinged with red, *crocumque rubentem*. Gg. 4, 182.

Luteus, from *lutum* (weld). Root *lu* for *hlu* for *ghlu* for *ghar* (sprout). Physical standard, weld itself, used as dye-stuff, yellow with less red than *croceus*, e. g. *Aurora lutea in roseis bigis*. Aen. 7, 26. Yellow seems more yellow seen against red.

^*Aurum* (gold). Root *aur* = *aus* = *vas* (burn, blaze), cf. *Aurora*, etc. Physical standard, gold itself, yellow with lustre, becoming reddish by reflection, *sol aureus*. Gg. 1, 232.

Cereus, from *cera*. I. G. *kar* (to separate), *κηρίς*. Physical standard, wax, yellow plum.

Pallidus. Root *pal* (greenish-blue, or bluish-green darkened). Germ. *fahl*. Physical standard, brunette complexion after death or in violent fright, *Dido pallida morte futura*. Aen. 4, 644.

Lividus. Root *liv* (gray-blue). Physical standard, lead, *glandes liventis plumbi*. Aen. 7, 687.

Caeruleus, from *caelum*. I. G. *kav* (hollow, vault). Physical standard, blue sky, normal tint of Mediterranean, *caeruleo sunt nomina ponto*. Aen. 12, 182.

^*Purpureus*, *purpura*, Gr. *πορφύρα*. I. G. *bhar* (wave, agitate). Physical standard, murex, or sea-snail, magnificent color formed by union of red and blue, ripe grape, *purpureae vites*. Gg. 2, 95.

Puniceus, from *Punicus*, from *Poenus*, origin of the color from Carthage or Phoenicia. Physical standard, murex itself. It seems to have more red than *purpureus*, *puniceis rosetis*. Ecl. 5, 17.

Murex. I. G. *mar*, *smar* (rub, stain, smear), name given to the dye made from sea-snail. Physical standard, itself, as dye-stuff, *Tyrio ardebat murice laena*. Aen. 4, 262.

^*Ostrum*. Gr. *ὄστρεον*, oyster, shell-fish. I. G. *as* (cast off, throw away). Physical standard, same as above, inclining strongly to red, *ebur violare sanguineo ostro*. Aen. 12, 67.

Albus. I. G. *albh* (white, dull white, approached either through yellow or through blue), cf. *ἄλφι*, *ἄλφος*, etc. Physical standard, white, or albumen, of egg, blue-white. Sulphur, yellow-white, *sulfurea Nar albus aqua*. Aen. 7, 517.

Candidus. I. G. *kand*, *skand* (shine, glow with heat), cf. *incendere*, *κάνδαρος* (live coal). Physical standard, lily glowing white against dark green leaves, white horse in sunshine, feeding in field of grass, etc., *candida viridi in litore conspicator sus*. Aen. 8, 83 (*fetu albo*).

^*Niveus*, from *nix*. I. G. *snig* (wash, cleanse). Physical standard, *nix*, generally a cold, bluish white, but changing with atmospheric conditions.

Argenteus, from *argentum*. I. G. *arg* (shine, glitter), cf. ἀργός. Physical standard, silver, white with metallic lustre, goose, dolphin.

Lacteus, from *lac*. I. G. *glakt* (milk). Physical standard, milk itself, soft, creamy white.

Marmoreus, from *marmor*. I. G. *mar* (shine, shimmer), cf. μαρμαίρω (shine), μάλός (white), etc. Physical standard, white marble, white with lustrous surface.

Decolor, from *color*. Physical standard, the dull, bleached whiteness of old age, in complexion and hair, *decolor artus*. Aen. 8, 326.

Canus for *casnus*. I. G. *kas* (shine), cf. *casus* (old). Physical standard, silver-gray hair and bud, shining but yellowish.

Glaucus. Gr. γλαυκός, root *gal* (cf. *gilvus*), bright. Physical standard, sea agitated with foam-crested waves, bluish gray.

Ater. Root *aed*. I. G. *idh* (burn), blackness as the result of burning. Physical standard, ashes, *cinis ater*, what is left after all color is burnt out = *decolor*, notion not positive but negative.

Niger. I. G. *nik*, *nak* (slay, kill), cf. *nex*, *nox*, *nocere*, νέκυσ, etc., blackness as color of night and sign of death and evil, blackness approached through violet (viola), through green (ilex), through blue water, through red (negro), through yellow (wet sand).

Fuscus = *fur-scus*, root *fur*. I. G. *bhar* (shake, agitate)—cf. *Furiae*—blackness approached through red and brown. Physical standard, negro's complexion, Mor. 33, night-bird's wings.

Fumeus, from *fumus*. I. G. *dhu* (boil, smoke). Physical standard, *smoke*, with blue or brown tinge.

Pullus. I. G. *pul*, cf. *pallidus*, etc., bluish gray approaching blackness. Physical standard, spots on sheep. Gg. 3, 389.

Piceus, from *pix*, *pic*. I. G. *pi* (squeeze), cf. *pinus*, πίσσα, etc. Physical standard, *pitch* itself, dirty, dull black, sweat mingled with dust running down the face. Aen. 9, 813.

After thus fixing the etymological force and the physical standard of each color-term that Vergil uses, the method of our investigation would lead us to fix for each color its limits of variation under possible changes of purity, of luminosity and of contrast. In my own studies for this essay I have worked out, in this way, all the variations and applications of each separate color-term. The details of this study have, indeed, a mighty charm for the student that deals with them by combining the principles of philology with the principles of scientific chromatics; but the presentation of these details, case by case, would lead rather to a series of separate

monographs than to a general discussion of Vergil's color-system. As general result of my separate studies, I may boldly say that in no single case does Vergil ever extend the use of any color-term beyond what science recognizes as the possible limit of its extension. His application of his color-terms is often imaginative and sometimes startling; but there is no Vergilian application of any color-term that is not correct and even accurate according to the principles of chromatics. Leaving this subject, then, as unfit for discussion except in special treatises, I pass on to the last great question that is involved in the color-system of the poems. Is any comparison possible between color as imagined in the poems of Vergil and color as diffused in the visible objects of the universe? How far does the color-system of Vergil agree with the color-system of nature? In the distribution and quantities of each color respectively, how far does the world as represented in Vergil's poems agree with the world that actually exists?

Color, as we know, arises in nature from the breaking up of white sunlight, by absorption and reflection, into colored lights of various hues. The spectrum gives us power to break up the sunlight at pleasure; it even gives us power to measure with absolute accuracy the fractional amount of each color that is present in every unit of white light. In every thousand parts of sunlight, each color, red, green, violet, etc., is present in a fixed proportion; consequently, amid all the infinite play of colors that makes the ever-varying charm of the visible universe, however various the combinations, there is a fixed and unvarying quantity of each color always present. In every 1000 parts of white sunlight that beats upon the earth, there is of red light 330 parts, red-yellow 155, yellow 110, green 87, green-blue 67, blue 74, violet 177.

As said above, if we leave out the terms for white, gray and black, there are in Vergil's poems 350 uses of high color. That is, in every thousand parts of light, as the world showed itself to Vergil, of red light there were 220 parts as opposed to 330 in the spectrum; red-yellow, 117 as opposed to 155; yellow, 160—110; green, 186—87; green-blue, 74—67; blue, 88—74; violet, 0—177. That is, the world of Vergil's imagination, as compared with the real world, is defective in red, red-green and violet, and is excessive in yellow, green, blue and blue-green; or, to put the same facts into a more convenient form, Vergil's sense of color is fullest at the middle of the spectrum in yellow, green, green-blue and blue, and is defective at both ends, in red and red-yellow and especially in violet.

The excess is to be explained by the poet's preference for warm colors over cold and for the more luminous over the less luminous colors. The warm colors are, in painter's language, the reds, red-yellows and yellows that make the upper half of the spectrum. Of these there are in Vergil 497 parts in the thousand; but Vergil's purple also is a warm color because of the red that is in it, and of purple he has 154 parts. Thus, in every thousand parts of light, Vergil saw 651 parts of warm color as opposed to 349 parts of cold color. But in the spectrum there are 595 parts of warm color as opposed to 405 parts of cold color. Thus the genius of Vergil, in his picture of the universe, errs from the exact truth of nature by an excess of warm coloring. The poet's imagination, to that extent, idealizes the facts of nature by a warmer and brighter presentation of the visible world. His world stands to the real world as a portrait by Titian to the face of the human original. Again, in respect of luminosity, the colors of the spectrum grade downward from yellow, the most luminous, through green and red and blue to violet, the least luminous of all. Here, too, as idealizing artist, Vergil prefers the luminous colors. In yellow, for example, he has 160 parts against 110 of the spectrum; in green he has 186 parts against 87 in the spectrum; in reds including purples he has 374 parts against 330 in the spectrum. But in blues he barely reaches the proportion of the spectrum, and in violet he is totally deficient (0 against 177).

These facts are all significant of Vergil's genius. His perceptions of color are clearest and strongest at the middle of the spectrum; even in his sensuous imagination he is temperate and reserved, avoiding the extremes of sensation, and dwelling by preference upon the mean terms, the *media via* of visual perception. But, in lighting up his imaginary world, he is, in his perfect art, not realistic but boldly an idealist. By unconscious selection he floods his canvas with the warm glow of reds and purples and yellows, and brings down the use of cold colors far below the measure of their actual diffusion. And again, with the eye of the poet, anticipating the analysis of science, he discerned the colors that had the highest degree of luminosity, and lifted his glowing picture of the world far above the actual light of nature, by giving preference to the colors that are the most luminous, the most effective and far-reaching as well upon the eyes as upon the imaginations of mankind. Thus, even in this point of color, the works of Vergil's genius stand out as creations of a nobly ideal art, temperate in all things, won-

derfully true to nature, but rising boldly above nature both in the luminosity and in the warmth of their coloring.

But the color-system of Vergil differs most from the color-system of nature by the total absence from it of violet. In the solar spectrum, as we saw, in 1000 parts of white light there are 177 parts of violet; but in Vergil's spectrum there is no violet at all, and the spectrum ends after *caeruleus* in *niger*. This absence of violet from the Vergilian system is strong confirmation of the theory that the conscious perception and the naming of the colors have followed a law of natural sequence. Those colors that produce the strongest effect upon the eye were the first to be noticed and the first to be named; and the strength of the color-effect and, therefore, the priority of the color-term are dependent upon the wave-length of the color itself. Thus red was the first color to be noticed and to be named; then orange, then yellow, then green, then blue, then at last violet. For example, when the Homeric poems were composed, red, orange and yellow were the only colors much noticed or distinctly named; green was the frontier-color; blue and violet were unnoticed and unnamed. But mankind grew on both in its observation of color and in its power of giving names to the colors observed.

A thousand years passed by. Vergil came forward, as the poet of the Roman empire and of the Italian people, to give us his poetic representation of the world. See now the advance in color from Homer's time to Vergil's. Green is added on to red and yellow as part of the color-system of nature, and blue is added on to green. But at blue the progress is arrested. Of violet, the last color of the spectrum, the color of the shortest wave-length, there is in Vergil no conscious vision and no distinct name. But the genius of Vergil stands on the very verge of the final discovery. The lovely color that lies below blue, closing the glories of the spectrum, as we can see by many allusions in Vergil's poems, was dimly present before his eyes and in his imagination. His genius was already laboring at the task of giving to it expression in language. Sometimes it is by *niger* that he seeks to express the mysterious color through which blue light passes into blackness. Sometimes by a confusion of sight which still prevails among more than one-half of civilized men, he confounds violet with purple, and calls it *purpureus*. In one line of exquisite beauty he combines the two methods, in order to find expression for the violet color that floated as a distinct impression before his mind:

violae subluet purpura nigrae (Gg. IV 275),

"The purple of the black violet tones down its color."

Here, then, in this attempt of Vergil to complete his color-system by the discovery and naming of violet, we must take our leave of the great poet that stands half-way, as it were, between Homer and Göthe.

He had advanced beyond the point reached by Homer in substituting varieties of color for degrees of light, as the prime beauty of the physical universe. He had enlarged the spectrum of poetry by carrying his perception of color down from green through blue to the very verge of violet. Above all, he had given precision to the color-terms of his own language, and painted for us a world in which simple colors and combination of colors are worked into an almost perfect glory of color-effects. And even in respect of violet, although he did not succeed in expressing what he saw, he felt the color-impression that he could not name; the poet's eyes had been blessed with the dimly felt sensation of that color which is the last exquisite perfection of the spectrum.

THOMAS R. PRICE.

II.—HISTORICAL AND CRITICAL REMARKS INTRODUCTORY TO A COMPARATIVE STUDY OF GREEK ACCENT.

I.

Accent is a universal phenomenon in language, and one which is in close union with what is treated by grammar under the head of sound or phonology.

The sounds of a word without accent are merely separate stones which accent cements into a linguistic entity, either a word or a sentence. W. v. Humboldt says: 'The unity of the word is produced by the accent. This, by itself, is of a more spiritual nature than the sounds, and it is therefore called the soul of speech, not only because it is really the element which carries intelligibility into speech, but because it is, more than other factors in speech, the immediate expression of feeling' (cited by Göttling, *Accent der griechischen Sprache*, p. 8).

The word accent in modern terminology is unfortunately compelled to do duty for more than one linguistic fact. First, in the case of the word, it signifies the *relative* stress and pitch characteristics of its various syllables, with no restriction to that syllable which has the strongest stress or the highest pitch. This is the most scientific function of the word. A closer study of the life of the word cannot be satisfied with a theoretical analysis of its sounds and syllables and a superficial recognition as to which of the syllables has the highest pitch or strongest stress, but it must be known also in *what way* or to *what extent* this syllable is elevated above those surrounding it. Furthermore, the relations of the remaining syllables to one another will always show that the same characteristics which distinguish the tone-syllable *κατ' ἐξοχήν* attach themselves in a lesser degree to some one or more of the remaining syllables; in short, I would define word-accent in this wider sense as the history of stress and pitch in the immediate practical subdivisions of the word, its syllables. This definition of accent has necessarily to be kept apart from that other more familiar one by which, in the current parlance of grammar, the pitch or stress of the most accented syllable is designated. This, of course, is not all. For just as the

word has its history of pitch and stress, so has the sentence. The members of the sentence stand in a relation to the sentence as a whole which is not unlike that in which the syllables stand to the word. Here, of course, the word 'accent' has again to do double duty: first, it indicates the relative characteristics of the words which make up the sentence, and, secondly, the word is also employed to mark that favored member of the sentence which holds the most prominent position, *i. e.* the one which corresponds to the 'tone-syllable' in the word.

In the sentence 'he did it, not she,' we may speak of accent in its most pregnant sense and refer merely to the two summits 'he' and 'she,' or on the other hand we may call before our minds a picture of the exact relation of each of the words in pitch and stress, not giving our attention merely to the summits, but watching the undulation of the tone-line in which the sentence moves all along, from the beginning to the end. This is the study of accent in its scientific sense.

That the accent of a sentence is as much under the influence of an organic law of some kind as the accent of the word is seen as soon as one attempts to disturb the natural cadence of a sentence such as the one cited above. By transferring the summit pitch and ictus to the second word of the sentence we destroy the organic life of the sentence fully as much as though we change the summit pitch and stress in a single word. 'He *did* it, not she' is as much not an English sentence as '*d*velopment' is not an English word. Frequently the change of relation in pitch and stress does not go so far as to destroy the sentence, it simply makes another sentence out of it, as for instance when the summit tone is shifted successively from one word to another in the group of words 'give me that book.' We obtain four different sentences corresponding to the four different positions of the summit tone.

With this last case may be compared the way in which, *e. g.* in Greek, the change of accent changes entirely the character of certain words otherwise the same, and in fact enters as a considerably fruitful factor into word-formation. For instance, *τροχός* is an agent-noun or participial formation meaning 'running,' 'a runner'; *τρόχος* is an action-noun or abstract, 'a running,' 'a course'; *φορός* means 'bearing'; *φόρος* 'a bearing,' a 'tribute'; both couplets are formations identical in every respect but their accent; the accent makes the same phonetic groups into two words as distinctly differentiated in function as two primary noun-formations from the same root can

be. And, lest it be suspected that it was merely the superfine linguistic genius of the Greeks which brought in so delicate a factor as a power in word-formation, it may be stated at once that this difference is prehistoric, and Indo-European; the couplet *φορός* and *φόρος* makes a perfect proportion with Sanskrit *bhārd* 'bearing' and *bhāras* 'a bearing,' 'a burden.' In the same manner cf. in Greek *μητροκτόνος* 'killing his mother' as epithet of Orestes, and *μητρόκτονοι* 'slain by a mother' as epithet of the children of Medea, the accent alone is the factor which has produced two distinct categories in noun-composition, also prehistoric and Indo-European, and up to date not understood by the familiar guides for the study of Greek.¹

The chapter on sentence-accent is one of the most difficult and obscure in the study of grammar, and has been brought within the range of scientific discussion only very lately. Of course certain obtrusive phenomena which belong under this head had been noticed and discussed long ago; as for instance the fact that certain words lose their independent accent in the sentence, namely, the

¹ *Μητρο-κτόνος* means literally 'mother-slaying'; it is the kind of compound which is called *tatpuruṣa* by the Hindu grammarians, that is, a simple compound in which the first member stands to the second in the relation of a case dependent upon it. *Μητρό-κτονοι* is a secondary adjective compound, what is called in Hindu grammar a *bahuvrīhi* compound, one upon which the idea of possession and the like is secondarily engrafted; the meaning is strictly speaking 'possessing,' i. e. being affected by a mother-slaying. The stem *κτονο-* in the two compounds is not the same; in the first instance it is the nomen agentis *κτόνος* 'slaying,' in the second it is the nomen actionis *κτόνος* 'a slaying.' The difference of tone in the two compounds represents one of the most noteworthy archaisms in Greek nominal accentuation. Simple dependent compounds like *μητρο-κτόνος* were originally accented on the second member of the entire compound; this law is so strongly alive in the Greek compounds of this class, whose second member is a noun of agency in *-ος*, that the law for recessive accentuation is observed only so far as it does not annul the older law according to which the tone must be on the second member, therefore *μητρο-κτόνος* is against the recessive tendency. On the other hand, possessive compounds were originally accented on the first member, and in accordance with that, such compounds follow freely the laws of recessive accentuation, as *μητρό-κτονοι*. The same law reveals itself in such accentual difference as is contained in Sk. *yajñakāmas* 'desire of sacrifice,' and *yajñā-kāmas* 'having desire of sacrifice'; the former is a simple dependent, the latter a secondary possessive compound. The Sanskrit regularly differentiates such compounds by varying accentuation, while in Greek the archaic differentiation of accent is preserved only sporadically. See L. v. Schroeder in Kuhn's *Zeitschrift*, 101 fg., esp. pp. 106, 110 and 116; Whitney, *Sanskrit Grammar*, §§1247, 1264 fg. and 1293 fg.

enclitics and proclitics;¹ certain words change their accent according to their position in the sentence: the so-called anastrophe² of

¹ That the proclitics do not lack an etymological accent (cf. below, p. 56), but that they lose their accent from syntactical causes, *i. e.* from their relation to other words in the sentence, can often be shown easily, either by pursuing their history within the language itself, or by comparison with corresponding words in other languages. For instance, *οὐ* proclitic appears at the end of a sentence and in some other cases as *οὐ*; *ὥς* and *ἐξ* when they follow the governed word appear as *ὥς* and *ἐξ* (*θεὸς ὥς, κακῶν ἐξ*). That the proclisis of *ὁ, ἡ* is not due to some etymological peculiarity of these words is shown by the Sanskrit correspondents *śa, śā; ol, al* the special Greek new formations for older *τοί, ταί* (Sk. masc. *śe = τοί*) are made analogically after *ὁ, ἡ*, and borrow from them their proclisis. In the same manner no doubt all proclitics lose their accent owing to syntactical relations, *i. e.* their lack of accent is due to Greek laws of sentence accentuation. About enclisis we will have much more to say below.

[It is almost needless to add that the word 'proclitic' is a modern invention brought into currency by G. Hermann (Göttling, p. 387). That does not militate against the existence of the thing; only there seems to have been no recognition of it in antiquity, and the omission of the accent in the cursive MSS was due to differentiation, to the desire of distinguishing not only between *ὁ* and *ὅ*, *ἡ* and *ῆ*, *οἱ* and *οῖ*, *αἱ* and *αῖ*, but also between *οὐ* and *οὔ*, *εἰς* and *εἰς*, *ἐν* and *ἐν*, *ἐξ* and *ἐξ*, the *spiritus asper* not being heard at that time. See G. Uhlig, *Zur Wiederherstellung des ältesten Compendiums der Grammatik, Festschrift zur Begrüssung der XXXVI Philologenversammlung*, p. 80.—B. L. G.]

² The true explanation of anastrophe is as follows: Originally 'prepositions' were oftener or as often 'postpositions,' *i. e.* the position of these small words in the sentence was a free one. This is clear, especially from the Vedic Sanskrit, where some of the most common ones occur oftener after their nouns than before them (*e. g.* *ā* 'to' occurs in the Rig-Veda 186 times after its case and only 13 times before it). The mere fact that in later periods of language (*e. g.* Greek and classical Sanskrit) the tendency is to place them before their cases in itself proves nothing against this natural assumption. The case of a monosyllabic preposition like *ἐξ*, which receives its natural accent after the word it governs, but is proclitic when it precedes it, points to the probability that the true accent of these Greek particles must be looked for in their postpositive position. Indeed, just as *ἐξ* (orthotone), so do all bisyllabic prepositions appear with their true accent when they follow their cases, and just like *ἐξ* (proclitic) do all bisyllabic prepositions exhibit a *substitute for proclisis* when they accent their ultimate. The grammars which regard the oxytonesis as the original accentuation, of course explain it as due to a desire on the part of the language to point to the word governed by means of the accent, but such an explanation needs hardly to be refuted.

The originality of the tone of bisyllabic prepositions in anastrophe is proved in addition by the fact that this accent is demanded by the corresponding Sanskrit words whenever the etymology is clear. So Sanskrit *dpa* is not to be compared with Greek *ἀπό* but with *ἀπο*; Sk. *dpi* not with *ἐπί* but with *ἐπι*; in the same manner the archaic character of the accentuation in *περί, πάρα* and

oxytone bisyllabic prepositions, which, as is now generally believed, preserves the original accentuation of these prepositions. The change of an acute to a grave on an oxytone before another word, though a phenomenon totally unexplained,¹ contains no doubt a

ὑπο is warranted by Vedic *p̄dri*, *p̄drā* and *śpa*; the etymology of *μέτα* and *κάτα* is obscure, but they probably, like those preceding, have preserved their original form in paroxytonesis; *ὑπερ* is not to be directly compared with Sk. *up̄dri*, which is reflected exactly in the oxytone *ὑπείρ*; *ὑπερ* may have preserved an originally different accentuation, or it may have followed secondarily the accent of the other prepositions which suffer anastrophe, aided perhaps by the accent of *ὑπερος* = Sk. *śpara*. On the other hand *ἀμφί*, which does not suffer anastrophe, is borne out in its oxytonesis by Sk. *abhi*; *ἀντί* to be sure is oxytone after the case which it governs, against the accent of Sanskrit *anti*; but it may have left the company of the prepositions with anastrophe, because it differs from all of them in having its first syllable long (by position). In fact it appears to be a law, unnoticed even by Benfey, the author of this explanation of anastrophe, that only prepositions of two short syllables are affected by it (*ὑπείρ* always oxytone, but *ὑπερ*—*ὑπέρ* with anastrophe). The etymology of *ἀνά* and *διά* is obscure, but there is again no reason to doubt that their oxytonesis is based on good etymological grounds. The fact that these prepositions were originally paroxytone is proved also by the fact that they are so accented in adverbial function. Prepositions were originally adverbs, which have become attached to certain cases secondarily and in relatively later periods of language. Many common prepositions in Greek are still adverbs in Vedic Sanskrit: *ἀπα*, *p̄rā*, *p̄drā* (*ἀπο*, *πρό*, *παρα*), while *p̄dri* (*περί*) does function for both; conversely the Vedic *dti* (*ἐτι*) is both adverb and preposition, while in Greek it has remained adverb only.

The assumption that such accentuation as *ἀπό*, *παρά*, etc., contains a substitute for proclisis is easily vindicated. As a matter of fact only monosyllables are toneless in proclisis; the treatment of bisyllabic words in the same position is in perfect accord with the treatment of enclitics when these contain a too great number of morae. Just as enclisis is restricted to three morae and two syllables (therefore *λόγος τις*, but *λόγοι τινές*, cf. below, p. 42), so proclisis is restricted to one syllable and two morae (therefore *ἐκ πάντων*, but *περὶ πάντων*). The author of this ingenious explanation of anastrophe is Benfey ('Die eigentliche Accentuation des Indicativ Praesentis von *ἐς* sein und *ᾧ* sprechen sowie einiger griechischen Praepositionen,' Göttinger Gelehrte Nachrichten, Febr. 27, 1878, p. 165 fg., reprinted in *Vedica und Linguistica*, p. 90 fg.); he closes his article with the following remark: "... es ist nicht besonders rühmlich für die griechische Philologie, dass, nachdem sie mehr als zwei Jahrtausende mit verhältnissmässig geringer Unterbrechung geübt ist, noch in ihren jüngsten Lexicis und Grammatiken, die Formen *ἀπό*, *ἐπί*, *παρά*, *περί*, *ὑπό*, *κατά*, *μετά* aufgestellt werden, welche in der Sprache weder je vorkommen noch vorkommen konnten.'

¹An elaborate discussion of this difficult question, which space forbids us to reproduce even in a condensed form, is contained in the essay of Leonhard Masing: *Die Hauptformen des Serbisch-Chorwatischen Accents, nebst einleit-*

difficulty whose solution will depend upon further investigation in sentence-accent. The difference between interrogative and indefinite pronouns (interrogatives, orthotone; indefinites, enclitics) is a case where *sentence-accent*, apparently, has given the language a method for differentiating an originally single category into two; this also is not understood, but the archaic character of this phenomenon is warranted by similar methods in other languages.¹ And it has been urged lately that two different word-forms which perform the same function, may owe their difference in form to different intonation in sentence nexus.²

enden Bemerkungen zur Accentlehre des Griechischen und des Sanskrit, St. Petersburg, 1876, p. 19 fg.

¹ The relation of *τίς*, orthotone and interrogative, to *τις*, enclitic and indefinite, is evidently the same as that of the German interrogative 'wer' to the indefinite 'wer' in such sentences as the following: '*Wer* ist gekommen?' and 'Es ist *wer* gekommen.' We recognize at once that the enclisis of the indefinite is due to its peculiarly subordinate position in the sentence and not to any etymological deficiency, it is therefore a feature of sentence-accent. Cf. the still less clear method of the Sanskrit for differentiating interrogatives from indefinites. By various particles (some enclitic and others orthotone: *ca*, *cand*, *cit*, etc.) the interrogative without losing its own tone becomes indefinite, thus *kds* 'who?' *kdg ca* 'any one'; cf. Lat. *quis* and *quisque*, identical in form and meaning. Whitney, *Sk. Gram.* §507; Delbrück, *Die Grundlagen der griechischen Syntax*, pp. 138, 145.

² The most striking instance of this kind is an attempt to account for the different forms of the third person plural of the copula. It is true that the various forms of it, Doric *ἐντι*, Attic *εἰσι*, Ionic *ἔασι*, cannot be carried back to any one origin by any phonetic jugglery. Accordingly complicated processes of analogy have been resorted to generally in order to harmonize these forms. Gustav Meyer's view, *e. g.* is that *σ-avti* is the Greek 'ground-form.' From this form he derives *ἔασι* by assuming that the *ε* was added secondarily from the strong forms of the root (*e. g.* *ἐστι*) to **ἄσι* for **ἄντι*, *i. e.* **σ-avti*; while Doric *ἐντι*, Attic *εἰσι*, are also to be derived from **ἄντι* by assuming that the initial vowel was assimilated to the *ε* of the strong forms. Others employ other processes of analogy in order to harmonize these forms with one another. But Joh. Schmidt has taught for some years past that Doric-Attic *ἐντι-εἰσι* is to be referred to a form **σ-έντι* (= Germ. *s-ind*, Zend. *h-eñti*), while *ἔασι* is to be referred to **σ-avti* in the manner exhibited above. The two forms **σ-έντι* and **σ-avti* are explained as, originally, respectively the orthotone and the enclitic forms of the word in accordance with the ideas of Wackernagel as laid down in Kuhn's *Zeitschrift*, XXIV, p. 457 fg., cf. below, p. 56 fg. Of these two forms *σ-έντι*, the orthotone form, crowded out **σ-avti* in Doric and Attic, while *vice versa* **σ-avti*, the enclitic form, gained the supremacy among the Ionians. This explanation is laid down with a very slight modification in the doctor-dissertation of his pupil, Felix Hartmann: 'De Aoristo Secundo,' p. 68, while

From the first opening out of the accented Vedic texts, a very important fact bearing upon sentence-accentuation had been noticed. In Sanskrit the finite verb in principal clauses is enclitic, while in subordinate clauses it is orthotone; this fact lay fallow until Jacob Wackernagel, in the 23d volume of Kuhn's *Zeitschrift*, p. 457 fg., showed that the Greek verbal recessive accent is nothing more than this enclisis of the finite verb extended to all kinds of sentences, subordinate as well as principal, but at the same time modified by that peculiar law of Greek according to which enclisis cannot extend beyond three morae. Wackernagel's ingenious discovery we will discuss in full further on; the point which is to be recognized here is the fact that the study of sentence-accentuation is destined to a prominent place in the grammars of the future, and that the present generation of scholars will, beyond a doubt, see this develop into a science; the delicacy of the subject will call for the keenest penetration, but this will be rewarded by the importance of the results; results of comparative grammar alike valuable to the phonetist, the morphologist, and above all perhaps the student of syntax.

The study of accent in these two forms (sentence and word-accent) has then gained a distinct place in grammar. It may be mentioned also that the phonetist recognizes phenomena closely parallel to these in the structure of the syllable. The syllable also has a relative accentuation, *i. e.* its various parts exhibit different degrees of pitch and stress, and like the word the syllable has usually one summit, which is a sonorous element, most frequently a vowel, as *e. g.* in *hánd*; often a lingual or nasal as in the second syllable of *anchrrrite*, *anglŋg*, *handsmmst*. That the summit accent is variable in position, according to the character of the syllable, can be readily observed in taking a set of pairs of syllables which vary from one another in their final consonants, these being in the one case surd and in the other sonant: *seed* and *seat*, *pease* and *piece*, *brogue* and *broke*; the syllable tone of *seed*, *pease* and *brogue* is upon a part of the vowel nearer to the final consonant than in *seat*, *piece* and *broke*. Further, there may, just as in word-accent, be more than one summit-accent, especially in long syllables.

Schmidt himself has returned to the expedient of analogy in KZ. XXV, 591. Hartmann also employs Wackernagel's ideas on sentence-accent in order to explain the various forms of the second aorist, *ibid.* p. 66. And Wackernagel himself (KZ. XXIV, p. 470) accounts for the loss of augment in preterits by assuming different accentuation in subordinate and principal sentences.

If the syllable 'yes' is pronounced in a contemplative way, *e. g.* in the sentence 'yes, that may be so,' it receives two summits with a decided fall between them. In general it can be noticed that in isolated syllables the relative accentuation of the various sounds gains especially clear expression; so *e. g.* in the various uses of the word 'well' in such connections as 'well, let's go then,' and 'well, are you ready?' The first 'well' has falling tone, the second rising tone.

The subject of syllable-accentuation so far has not gained a very important place in grammar, and still belongs to the phonetist rather than to the grammarian. But taken in connection with word and sentence-accentuation, syllable-accentuation serves to show that accent has been and still is a constant factor at work upon every infinitesimal subdivision of human speech. If we imagine the course of human speech represented by a line, this line will be a *constantly* undulating one when we wish to mark the varying pitch of the sounds; if we wish at the same time to convey a picture of the varying stress or ictus the line would constantly and gradually vary in thickness. Add to this the fact that this variation in pitch and stress is not the effect of one single kind of accentuation, but of a threefold one, and it will be understood how delicate a subject for investigation it becomes even in living speech. In dead languages the difficulties are increased so as to make it hopeless that all the bearings of accentuation will ever be understood. The discussion must restrict itself almost entirely to accent in its pregnant sense, *i. e.* what we have termed summit-accent; only rarely will the stations for lower pitch or minor stress play a part in the discussion. For all the tradition on the subject, preserved either in accent marks or in the description of contemporaneous grammarians, is restricted to that, and is very fragmentary, as well as vague in its terminology.

The general phonetic bearings of this subject can at present be studied most conveniently in Sievers's *Handbuch der Phonetik* (Manual of Phonetics), especially §§32-6, pp. 177-95 (word and sentence-accent) and §§29 and 30 (on syllable tone).

II.

It seems to-day almost a truism to state that a discussion of Greek accent must start from whatever knowledge there is on Indo-European accent; in other words, that the study of Greek accent must be comparative. This is true precisely as much in this division

of Greek phonetics as in any other, as for instance the study of Greek consonants, where one would not now-a-days presume to say much without bringing in the related languages. This, however, does not exclude the fact that accent is, more than other factors in speech, subject to those forces in language which produce change. The Greek and Latin three-syllable accentuations present so fixed and peculiar a physiognomy even in their earliest phases that one would suspect that this restriction to the last three syllables of the word is something that was inherent in these languages from their origin, yet it has been proved for the Greek that this extremely peculiar accentuation is a development out of a system of accentuation to which such a restriction was originally totally unknown.

The German language to-day exhibits a seemingly fixed law of accentuation, namely, that of the root-syllable. This seems a reasonable accentuation, for of all parts of a word the root would seem to be the most prominent and therefore entitled to superior stress and pitch. Yet no fact in linguistic history is at present so clear as this, that the original German accentuation was *not* restricted to the root-syllable, but was a free movable accent, often upon the root, but hardly less often upon some suffixal element. This is proved by Verner's law, and the accentuation of the root-syllable in the German of to-day cannot be due to anything else than the analogy of those words which, under the old free tone-law, exhibited the accent on the root; an analogy carried out with almost flawless consistency.

This does not exhaust the variety of accentual methods to which Indo-European languages have arrived by various processes, often very obscure. The Lithuanian division of the Lithu-Slavic family consists of Lithuanian proper, Lettish and old Prussian. The last branch has died out without leaving any tradition as to its accentuation; the first, the Lithuanian, exhibits a free accentuation which can be compared and identified with that of the Vedic Sanskrit, in spite of many deviations. The Lettish, which is related as closely to the Lithuanian as the language of Herodotus is to that of Thucydides, has abnegated all historic accentuation and accents everywhere the first syllable.

We need not go so far as the Lithuanian and Lettish to find an equally striking and equally difficult phenomenon. The Aeolic dialect in Greece is differentiated from the other dialects in that it has given up almost entirely the accentuation of the ultimate. Excepting the oxytone prepositions of two syllables and a few

conjunctions like *αὐρά*, *δρά*, there can be no accentuation except that of the penultimate and the antepenultimate (Göttling, p. 29). This is one of the main elements in the fabled special resemblance between the Aeolic and Latin, and has been the cause of much nonsense,¹ and this resemblance with the Latin has also given birth to the equally erroneous idea that the Aeolic accent is older than that of the remaining Greek dialects. On the contrary, no one fact in Greek accentuation is clearer than this, that the oxytone words in Greek are generally archaic, that they have more than all others resisted the recessive accent.²

To this tendency on the part of accentual systems to change in such a way as to lose its original complexion entirely, the fact is due that the comparative treatment of accent was, until very recently, a method which had not gained a firm hold upon the

¹All these do not exhaust the varieties of seemingly fixed systems which have been built up upon the debris of the old I. E. accentuation in the various families. In the Slavic languages, the Russian has still preserved noteworthy points of contact with the accented Vedic Sanskrit, but the Bohemian has adopted the same system as the Lettish mentioned above, namely, the accentuation of the first syllable, while the Polish has worked out for itself a still more peculiar system. All its words, excepting those borrowed from adjoining dialects, are paroxytone, and here we are again led to the only reasonable explanation, namely, that the frequent paroxytone accent of I. E. times was here extended into a law.

We can pick a case from the modern Romance dialects which will show the same complete change of accentuation, and which will at the same time carry the solution of the change with it. The words which are the representatives of the old abstract suffix *tāt* (Lat. nom. *tās*, *fraternitas*) are oxytone: French *fraternité*, Ital. *fraternità*; oxytone accent is a most non-Latin quality. A solution for this case which is altogether probable is that the modern oxytonesis has preserved the accentuation of the oblique cases: *fraternitātis*, etc. The English on the other hand holds to the accent of the nominative. In the same way the French *conscription* has the accent of the oblique case, *-ōnis*. In a case like French *parler* over against Italian *parlare* the accentuation of the ultima carries its own solution with it still more clearly.

²Almost all the important categories of noun-formation which are oxytone appear in their original accentuation, as can be seen even from superficial comparison. Thus nouns of agency in *-ός*, *φóρος* = Sk. *bhāras*; but the nouns of action are paroxytone, *φóρος* = Sk. *bhāras*; adjectives in *-ός*, *ήδός* = Sk. *svādās*, *ε-λαχός* = Sk. *laghās*, *ώκός* = Sk. *ācās*; adjectives in *-ρός*, *ἐρυθρός* = Sk. *rudhirs*; verbal adjectives in *-τός*, *κλυτός* = Sk. *krutās* = O. H. G. *hlūt* = Eng. *loud* (KZ. XXIII 123), *πικτός* = Sk. *paktās*; the word for father, *πατήρ* = Sk. *pitā* = Goth. *fadar* (ibid. 117); the perfect active participle *είδώς* = Sk. *vidvāns* (cf. *ιδύια* = Sk. *vidhīṣi*). In declension *ποῦς*: *ποδός* = Sk. *pād*: *padd*; *Ζεύς*: *Δι(φ)ός* = Sk. *dyāns*: *divds*.

minds of investigators. Parallelisms and resemblances between individual facts of Greek and Sanskrit tone-laws were noted very soon; even large collections of words and word-categories which exhibited identical accentuation were made, yet this did not seem to impress investigators with the fact that, unless these resemblances were accidental—and that theory was not advanced—the two languages were committed to the same original accentuation in every part, and that it must be shown why and how they present such important differences in historical times. On the contrary, investigators were content to call in, for Greek as well as Latin, the recessive principle (which after all is not recessive, inasmuch as it stops at the third syllable) as a something gotten no one knows where, perhaps as Bopp has it 'because the greatest recession of tone expresses the greatest dignity and energy.'¹

To-day any one who wishes for a hearing on the subject of the accentuation of any Indo-European language must operate with the following principles:

1. The accentuation of any I. E. language is a development out of the common I. E. accentuation, precisely as much so as the sounds and forms of that language, be they ever so changed, and be their analysis ever so difficult or even impossible.

2. The principle which changes accent is precisely the same as that which changes other language matter, regular phonetic change based upon phonetic law. Just as an I. E. consonant is changed in German according to Grimm's law, so it is possible that, *e. g.* originally oxytone word-categories may become paroxytone in some one language,² only this must be shown to take place accord-

¹ Vergleichendes Accentuationssystem des Sanskrit und Griechischen, p. 16.

² Or we will recognize below (p. 42) as important another Greek phonetic law of accent, namely this, that enclisis cannot extend beyond three morae and two syllables. Enclisis in general is an Indo-European quality (*e. g.* Greek *τε* = Sk. *ca* = Lat. *que*, etc., are all of them enclitic), but the Greek restriction as to morae and syllables is a Greek phonetic law in exactly the same sense as, *e. g.* the loss of *f* or I. E. *v*. The Vedic Sanskrit knows no restriction of this kind; a word of any length may be enclitic, as *e. g.* the stem *sama* 'any one' (Greek stem *ἀμο-* in *ἀμό-θεν*) is enclitic, not only in forms containing two syllables, but in all its forms, *e. g.* acc. *samam*, abl. *samasmāt*, gen. *samasya*. And several enclitic words may follow one another, so several vocatives, or vocatives with cases depending upon them, as *e. g.* Rig-Veda, VII 64, 2: *ḍ rājāna maha ṛtasya gopā . . . yātam*: 'O ye kings, guardians of great right come hither.' Here four successive words are enclitic, cf. Journal of the American Oriental Society, Vol. XI, p. 59.

ing to a law, and this law must like all other phonetic laws be based upon the results of observations exercised upon extensive material.

3. Where no phonetic law can be adduced, the influence of analogy must be the changing factor. So *e. g.* the modern German with its prevailing accentuation of the root-syllable, the significant syllable has been explained above; the influence of analogy in the Greek 'recessive' accent will be discussed further on; it is perhaps the most striking and convincing case of the workings of analogy.

4. The influence of foreign languages and adopted words cannot be left out of account. These usually carry their tone with them from home. So *e. g.* large categories of words in German betoken by their accentuation what is also known otherwise, namely, that they are of foreign descent, *e. g.* nouns in *-lüt, -ion*, etc., *universität, institution*, which exhibit foreign accent; the entire class of verbs in *ieren, studieren, marschieren*, in the same manner exhibit French suffix and French accent; according to Grimm words like *reiterei, malerei*, etc., have suffixal accentuation, although they are in their root good German words, because they were formed on the analogy of *melodey* (μελωδία), *abtei* (abbatía), so that this is an example where a distinct category of German words received both suffix and accent from abroad.¹

The question which arises next is: What was the character of this Indo-European accentuation from which the various peculiar accentuations of the several languages have developed? Of course the question can be answered only for the smallest part; almost all that is known is restricted to the summit-accent, and even here nothing is absolutely and completely clear. We will here consider only the one fact which, above all others, has gained an unimpugned position, namely, the freedom of position of the summit-tone of the I. E. word; other qualities both of word and sentence-accentuation, which are probably Indo-European, will be discussed further on in connection with the Greek itself.

The fact that the I. E. parent-language knew none of those restrictions as to the position of the tone which we see in almost all the languages that are still alive, and also in Greek and Latin, especially the latter, is seen by a comparison of the accented Vedic

¹ The influence of foreign languages upon accentuation is still more strikingly exhibited in the threefold tone of the German word *grammatik*, namely, *grám-matik, grammátik* and *grammatík*. The last contains the French accent (*gram-matique*), the one preceding the Latin (*grammdtica*), while the first represents the genuine German pronunciation with the tone on the root.

Sanskrit with the Greek and German. This comparison yields the result that the Vedic accent has preserved very closely the old word-accent of the I. E. parent-speech. Of course this result was obtained by the usual methods of comparison. Whatever in Greek and German accent has, upon investigation, proved itself to be archaic, is not only to be found freely in the Vedas, but is usually seen there in the form of a principle of wider scope. So *e. g.* the seemingly irregular accent of the participles and infinitives of the thematic or second aorist in Greek is an archaism on Greek ground. In the Veda this entire tense-system is accented on the same place, the thematic vowel, except in the augment forms, where the augment always takes the tone, cf. below, p. 58. In the same manner it will be observed repeatedly that the Greek cases of oxytonesis are usually of a somewhat disjunct and fragmentary character. Not clear in themselves, they do not yield up any principle until we see them in their full bearings in the accent of Vedic word-categories which accent the ultima. And again in German, Verner's law has shown that the more salient principles of Vedic accentuation, such as the shifting of the accent from the root to the flexional element in the non-thematic conjugations, belong to the oldest property of I. E. speech, cf. below, p. 35, note; it has also shown that apparently irregular accentuations, such as the Vedic accent of the nouns of relationship, *pitr̥* but *mātar̥*, must be carried back to the primitive Indo-European language.

No syllable, then, of an I. E. or Vedic word was, on account of its position or on account of its quantity, unable to bear the summit-tone; no restriction, such as is seen in the three-syllable accents of Latin and Greek, or in the root-accent of the German, is to be found. Thus *indra*, *indreṇa*, *dnapacyuta*, *dnabhimlātavarṇa*, *agninām*, *abhimatiṣāhā*, *parjanya-jinvita*, etc. (Whitney, Sk. Gram. §95) present instances of Vedic accentuation. As far as the meaning and value of this free accentuation is concerned, it must be confessed that little or nothing is known. Indeed, it may be fairly said that, in accordance with the more modest spirit in which linguistic investigation is carried on to-day, no very ardent search is made at present for a cause which distributes the accents over these various syllables. It is felt generally and justly that final explanations of such delicate questions are not in order. The energy of accent-investigators must be directed to an investigation of the simple details of accentuation, and the causes of these variations in the separate languages, before it can be hoped at all that the original

cause of these phenomena will be understood. As long as *e. g.* the restriction of Latin accent to penult and antepenult is a mystery, so long there can be no hope of actually penetrating into the inner life of the accentuation which preceded it.

Yet a noteworthy attempt to explain the I. E. accentuation dates back to 1847. The first one and almost the last one who undertook to describe, systematically, the accent in its historical development in the I. E. languages, and at the same time to assign a cause for its original character, was a French scholar, Louis Benloew, in a work entitled '*De l'accentuation dans les langues indo-européennes tant anciennes tant modernes.*' According to Benloew the summit-accent was originally an accent purely of pitch, a musical accent without stress or ictus. In each word which consisted of more than one syllable, some one syllable was pronounced musically higher than all the others; the syllable which was thus distinguished from the others was, according to Benloew, the chronologically last defining element in the word (*le dernier déterminant*). That is, according to the theory of word-construction which ruled in Benloew's day without opposition, and which is accepted to-day also to a very considerable extent, a word is made up of root, suffix, personal inflexion, case-ending, augment, reduplication and so forth, and whichever one of these various elements in the word had been joined to the word last, that was entitled to this higher musical pitch. So *e. g.* in an augment-tense the augment, in a noun in the genitive the genitive ending; when a word was compounded with a preposition, the preposition. As long as this principle was still in existence, the unity of the word in our sense had not as yet developed; the marked emphasis of the '*dernier déterminant*' directed the attention of both speaker and hearer so strongly to some part of the whole, to some special element in what afterwards became a unit, that it must be supposed that this accentuation was in force in a period previous to that of word-formation in its strictest sense. The cementing of the word as we have it now was produced by an additional force. By the side of the principle of the last determinant there was developed slowly and gradually a logical principle of accentuation whose purpose it was to act without reference, and in fact in opposition to the specializing tendency of the '*last determinant.*' This logical accent, it is assumed, affected the root-syllable, which, in the word as a whole, is the ruling syllable. The further history of accentuation in the separate I. E. languages exhibits, then, a gradual process by which this logical

accentuation gains the ascendancy in the word. This in turn is gradually counteracted and affected by the influence of quantity, which Benloew, with true instinct, regards as the last factor which entered the arena. In Sanskrit, as far as is known, the accent is totally independent of any considerations of quantity; in Greek, quantity, especially of the final syllable, begins to exercise an influence on accent; still truer is this of the Latin, where quantity and accent balance each other almost entirely.

The boldness and the *esprit* of Benloew's thoughts on this subject are quite out of proportion with their sobriety, with the extent of the material upon which they were based. In fact they are in all important respects hardly more than ingenious assumptions. Yet his theories deserve even to-day a certain degree of consideration, for they gained such wide adherence that certain of his thoughts are even now silently accepted. So, above all, the musical character of the early I. E. summit-accent, which has never been proved, and which, if separated from stress, is certainly to our ears an extremely peculiar accentuation. Verner, in his explanation of the Old German accent and its influence upon the mute consonants, starts with this statement: 'The I. E. accent was, in its nature, chromatic (*i. e.* musical), and, in its use, of unlimited freedom of position' (KZ. XXIII, p. 128). He then proceeds to explain his exceptions to Grimm's law, by the assumption that the accent became an accent of stress (expiratory) in primitive German, or possibly a combination of musical and stress accent. Benloew's other important idea, namely, that of the 'last determinant,' has also been revived in our day to explain a phenomenon of the widest extent and of great importance, namely, the variation of stem and accentuation in the non-thematic verbal conjugations.¹

¹ In Greek this variation of stem is preserved intact only in a few cases, and its immediate cause, the shift of accent from the stem to the root, is lost to sight, owing to the leveling force of the recessive accent in verbal accentuation. But the variation of stem-form as well as the accompanying shift of accent is easily established as archaic by comparison with the Vedic Sanskrit, so in the following cases:

<i>ei-μi</i>	<i>ei(*ei-(σ)ι)</i>	<i>ei-σι(*ei-σι)</i> : <i>i-μεν</i>	<i>i-re</i>	<i>i-ασα(*i-avri)</i>
<i>é-mi</i>	<i>é-qi</i>	<i>é-ti</i> : <i>i-mási</i>	<i>i-thds</i>	<i>i-ánti</i>
<i>Foid-a</i>	<i>Fois-θα</i>	<i>Foid-e</i> : <i>Fid-μεν</i>		
<i>véd-a</i>	<i>vét-tha</i>	<i>véd-a</i> : <i>vid-má</i>		

The duals, though they agree in both languages in having weak root-form (and accordingly are accented on the personal endings in Sanskrit), are left out

Benloew's work represents the first and also the last attempt on so pretentious a scale to inquire into the original character, development and history of I. E. accentuation. The next somewhat comprehensive work we owe to the founder of comparative philology, Fr. Bopp, in a book entitled '*Vergleichendes Accentuationssystem des Griechischen und des Sanskrit*,' Berlin, 1854. This work has really a much narrower scope, it does not profess to deal with general questions in any way, it merely attempts to give an exhaustive list of those words in Greek which have still preserved the accentuation of the Sanskrit and, therefore, in all probability the I. E. accent.

Yet, incidentally, Bopp does express himself on general matters, and in a way that cannot be called happy, either in its method of treating the question or in the result reached. He recognizes as the principle of Sanskrit as well as Greek accentuation 'the greatest possible recession of the tone to the beginning of the word,' p. 16-17. This mode of accentuation possesses the greatest dignity and strength. The limitation of the summit-tone in Greek to the last three syllables he looks upon as a degradation or enervation of

of consideration owing to the problematic character of the endings. In this variation of stem and accent one fact seems clear beyond all doubt, namely, that the weakening of the root is due to the shift of accent to the personal ending; but the question arises, what may be the cause of this varying position of the accent? There has been, as far as is known, but one answer to this question, that of F. De Saussure in his *Mémoire sur le Système Primitif des Voyelles dans les Langues Indo-Européennes*, p. 189, and that is distinctly in the spirit of Benloew's theory of the 'last determinant.' Saussure assumes with Friedrich Müller (cf. now also Fick in the '*Göttinger Gelehrte Anzeigen*' for 1881, Vol. II, part 45, 46, p. 1462) that the so-called secondary personal endings of the verb are more original than the primary, not that the secondary are the result of weakening from the primary, as has been generally held from Bopp's day down. The primary endings often differ from the secondary by an additional *i*, and it is thought that this *i* is the same deictic particle which appears, *e. g.* in Greek *τοῦτοί*. Thus

	1 <i>sg.</i>	2 <i>sg.</i>	3 <i>sg.</i>	3 <i>plur.</i>
Primary:	mi	si	ti	nti
Secondary:	m	s	t	nt.

By assuming that the secondary endings first entered into verbal formation and that these personal endings received the tone, whenever they could, a reasonable ground is gained for the exceptional position of the three persons of the singular; here the endings are only *m*, *s*, *t*, which are not fitted for carrying the tone of the word; therefore the tone remains on the root and preserves in it a stronger vocalization.

language. The accentuation of final syllables or syllables near the end is due to the 'sinking' of the accent from a position nearer the beginning of the word, etc. Nowhere, however, does he indicate in any manner by what process of investigation he came to this result, though these ideas permeate the entire book and are urged upon the reader with an evident fondness on the part of the author. They do not seem to be the result of investigation as to the nature and quality of the accent of these languages; they are in fact not offered as such. They are given merely as the *ex cathedra* opinion of the master who, if any one, has a right to speak *ex cathedra*.

Since Bopp's book, no comprehensive treatise on I. E. accent has appeared, nor is it likely that any such pretentious attempt will be made until investigation in the separate languages has established a better insight into the special accentuations; there is reason to hope that the now recognized importance of the study of sentence-accent will shed much light both upon the original history of accent in primitive times, as well as upon the ways in which the historical accentuations of the several languages developed out of the single Indo-European language.

What we have gained from this discussion of Indo-European accent is, first, the knowledge that the word-accent was a free one, restricted to no special syllable or syllables of the word, and untrammelled by quantity; secondly, that the I. E. language knew certain well-defined laws of sentence-accentuation, the traces of which may be fairly looked for in the separate descendants of it. Thirdly, that the elements which may be supposed to have changed this original accentuation can scarcely be different from those at work elsewhere in the formal life of language, regular phonetic change and analogy. As will be seen, what knowledge we have of Greek accent calls for no other factor and no other principle, nor is it likely that any new principle, as yet unknown, will ever exercise any important function in the progress of this difficult study.

III.

We turn now to the Greek itself. The literature of the subject, both ancient and modern, up to the year 1875 is carefully collected in the first paragraph of the book of Franz Misteli: 'Über griechische Betonung: Sprachvergleichend-philologische Abhandlungen,'

Paderborn, 1875.¹ Among the ancients the subject is scarcely touched upon in classical times. The first mention of it is in Plato's *Cratylus*, p. 399, where the terms *ὀξύς* and *βαρύς* first turn up; next in order is Aristotle, *Poetica*, chap. 20, where, in addition to the *ὀξύτης* and *βαρύτης* of Plato, a *μέσον* is mentioned, *i. e.* a middle-tone, which has been by some exalted to a most important position in the theory of Greek accent, as we shall see soon. Aristarchus in Alexandria is the next authority in chronological order; but above all other works of the ancients, the source for information is Herodian: *Herodiani technici reliquiae*, collegit, disposuit, emendavit, explicavit, praefatus est Augustus Lentz; especially the first volume containing Lentz's famous preface and the book *περὶ καθολικῆς προσφῶδίας*, to which Misteli gives the first place among his authorities.

In the study of modern writers on this subject one need not go back behind Götting, Carl Götting: *Allgemeine Lehre vom Accent der griechischen Sprache*, Jena, 1835; a book valuable for its digest of the opinions of the Greek grammarians, containing rich collections of material, but of course to-day almost worthless as far as theory and explanation of phenomena are concerned. Next in order are the books of Benloew and Bopp, which have been discussed in the preceding chapter. It may be added that Bopp's book, while almost worthless as far as its general theories

¹ The literature which is given there is more than full enough up to 1875. He omits one book which is practical and valuable for accent of nouns, namely, Chandler, 'A practical introduction to Greek accentuation,' which has appeared lately in a second revised edition, Oxford, 1881. Since Misteli there have appeared in addition to the many and often extremely valuable incidental remarks and minor investigations of comparative grammarians, a few important monographs bearing upon the subject:

Leonhard Masing: *Die Hauptformen des Serbisch-Chorwatischen Accents, nebst einleitenden Bemerkungen zur Accentlehre des Griechischen und des Sanskrit*, St. Petersburg, 1876, valuable for Greek accent in its first half, pp. 1-49, containing especially an exhaustive criticism of all opinions on the grave accent, §44 fg., p. 19 fg.

Jacob Wackernagel: *Der griechische Verbal-accent* (KZ. XXIII, p. 457 fg.), of the greatest importance for the general theory of the so-called recessive accent.

Theodor Benfey: *Die eigentliche Accentuation des Indicativ Praesentis von ἐξ und φῶ*, etc., cited in the note on p. 25. Important for its solution of anastrophe, and its valuable remarks upon enclisis and proclisis.

Leopold von Schroeder: *Die Accent-gesetze der homerischen Nominal-composita dargestellt und mit denen des Veda verglichen*, KZ. XXIV, 101-28; the first systematic attempt to establish Indo-European laws for the accentuation of compounds.

are concerned, is valuable as a clear and comprehensive exhibition of the facts which it treats, namely, the coincidences in the accentuation of Greek and Sanskrit words. Next, the subject owes some noteworthy and ingenious essays to Franz Misteli and James Hadley; Franz Misteli: *Über die Accentuation des Griechischen*, KZ. XVII, p. 81 fg., p. 161 fg.; XIX, p. 81 fg.; XXI, p. 16 fg. After the appearance of Hadley's article these essays were rewritten in book-form: *Über griechische Betonung: Sprachvergleichend-philologische Abhandlungen*, Paderborn, 1875. Hadley's brilliant paper was published no less than three times: On the nature and theory of Greek accent, by James Hadley, from the transactions of the American Philological Association, 1869-70; translated in *Curtius Studien*, V 407-28, reprinted in Hadley's collected essays, edited by Whitney. Hadley's as well as Misteli's theories, which are closely implicated with one another, will be discussed below. Finally, much important material is contained in the four monographs cited in the foot-note on p. 38.¹

If we now attempt to give a short general statement with regard to the position of the summit-tone as it appears in Greek, comparing it with that of the free I. E. summit-accent which we have seen established, we may best formulate the facts as follows, under two heads:

1. This free I. E. accentuation has been allowed to continue in Greek in all kinds of formations, *excepting finite forms of the verb*, when the free accent did not go beyond the antepenultima, e. g. κλέτος : κλέτος = *grutás : grdvas*, cf. the Germ. *hlūt* (Ags. *hlūd*); πούς : ποδός = *pād : padás*; λιπών : ἔλιπον = *ricdn : dricam, vidvān : vidūḡi* = *eidōs* (for older **idōs*) : *idvīa*, etc. See Bopp, Vgl. Accentuationssystem, pp. 178-84.

2. In all the finite forms of the verb and in all those formations, verbal, nominal, or otherwise, in which the old accentuation stood before the antepenult, a new principle of accentuation has established itself to the exclusion of the old free accent. The chief trait in this new law is that it does not allow the accent to remain on any syllable beyond the antepenult, but restricts it to the last three syllables of the word. To this law there is scarcely an exception in the entire tradition of Greek; the grammarians have fixed the accent of two Aeolic words which contain diaeresis on the syllable

¹ Misteli, in his list of authorities, mentions also the most important treatises on Latin and Sanskrit accentuation, which do not, however, concern us so directly.

before the antepenult, *Μήδεϊα* in Sappho and the Lesbian *ἐπιμέληϊα*, which are not of enough importance for a general discussion. Göttling, p. 20, note 2, and especially Misteli, p. 19, discuss them fully. There are, of course, some words in which the theoretical analysis of forms would lead to seeming exceptions to this law of three syllables, *e. g.* *μέλαινα* if we carry it back to its **μέλανια*, or *θύγατρης* if it is derived from **θύγατρης*; but this is prehistoric; at the time when the pronunciation was *μέλαινα*, all reminiscence of an earlier **μέλανια* was gone. Within these three last syllables the position of the tone evidently stands in relation to the finer measure of mora, as appears clearly in the law that the accent cannot pass beyond the penultimate when the ultimate is long, so that the Greek accent is, to a considerable extent, restricted to the last three morae, *e. g.* in such types as *ἡδίκουν*, *διδόειν*, *ἐλέγομεν*. To this there is in fact only one seeming exception and one real one:

1. A seeming exception to this restriction to three morae is offered by such cases as *e. g.* the genitive *κήπου*, where the acute is apparently four morae from the end of the word, but where in reality the second mora of the long penultima has the tone, so that if we analyze into morae and write **κεέποο*, it becomes clear that the exception is only apparent. That the acute on a long vowel means the accentuation of the last mora is not a mere assumption, as is shown by such cases as *ἐστώς* contracted from *ἐσταώς*.¹ In such cases a contraction has taken place, and if the tone had been on any other than the last mora the result would have been a circumflex; the reason for the absence of the circumflex is to be found in the fact that the last vowel contains two morae (**ἐστα-ώς*), with the first of which, the toneless mora, the *a* contracts; it thus leaves the accent untouched in the result, *ἐστώς*.²

¹ That *ἐστα-ώς* is the old type of this perfect participle can be seen from the Sanskrit equivalent *tasthi-vān*; here the Sk. *i* equals the Greek *a*, as in *sthi-tis* = *στα-τός*.

² The circumflex cannot display itself upon less than two morae (''), therefore also this projected **ἐστα-ώς* results in oxytone *ἐστώς*. A case where this law of circumflex is clearly exhibited is the vocative of the word *Ζεύς*. *Ζεύς* (for **Διεύς*) is an old oxytone = Sanskrit *dyāús*. By an Indo-European law the accent in the vocative recedes to the first syllable of the noun, that is, the tone is as near the beginning of the word as possible. The result for this stem is the vocative *Zeū* (*i. e.* *Zēū*) = *dyāūs* (*i. e.* *dīāūs*). The recession has taken place, but as the word contains but one long vowel, the tone has passed from the last mora to the first, exhibiting at least for diphthongs the actual divisibility of long vowels into morae.

2. The second exception to the law of three morae is much less easily disposed of. When the tone is on the antepenult and the last syllable is therefore short, but the penult is long, then it stands at least on the fourth mora from the end, as *e. g.* in ἄζωτος; and when both the penult and antepenult are long, apparently on the fifth mora from the end in a case like ἥπειρος.¹ In both of these cases there is, of course, no *a priori* reason why the law of three morae should not have been kept in force by making both words properispomena.² The only explanation that the authorities have been able to bring forward is the rather unsatisfactory one which assumes that in such cases the long penultima received a more hurried pronunciation and suffered a loss in quantity. So Götting, p. 27: 'the penultimate loses a part of its quantitative value because the strength of the tone of antepenult outweighs the following long syllable,' and in the same tone other writers down to Kühner. The difficulty in the way of such an assumption lies, of course, in the metrical value of such toneless long penultimates; they are just as inviolably long as any other long syllables; the *ει* of ἥπειρος differs in no way metrically from the *η* of the same word, and the explanation given has quite the appearance of having been constructed *ad hoc* without any sufficient ground. It is not uninteresting that there are quite a number of cases in the language in which both accentuations occur in the same word, one having the tone farther back from the end than the third mora, and the other having it on the third mora. In every case the one which follows the rule of three morae is the older one, *e. g.* ἐρῆμος Epic and in Herodotus, but Attic usually ἔρημος; ὁμοῖος Homeric, Ionic, and Old Attic, later ὁμοιος; τροπαῖον Ionic and Old Attic, common τρόπαιον; in the same way of ἐτοῖμος and ἔτοιμος the first is the more archaic form. In ὁμοῖος : ὁμοιος the historical precedence of ὁμοῖος is easily proven etymologically; ὁμοῖος is a secondary derivative from the oxytone stem ὁμό- = Sk. *samā-* with the secondary suffix -ιο- = Sk. *ya-* (Vedic -ia). By an accentual law, which perhaps dates back to the common

¹ Apparently only if we assume that the tone is on the last mora of ἥπειρος (*ἑῆπειρος) as in κῆπον (*κεῆποο).

² The extent to which such accentuation is favored in Greek may be best seen in the rendering of such Latin names as *Dentātus*, *Modēstus*, *Ahenobārbus*, etc., by Δέντατος, Μόδεστος, Αἰνόβαρβος, etc. Nothing, except the predilection of the language, is in the way of such an accentuation as Δεντράτος, etc. Hadley in Curtius's Studien, V, p. 413.

Indo-European period,¹ such a combination as $\delta\mu\acute{o} + \iota\omega$ yields $\delta\mu\acute{o}\iota\omega$, *i. e.* $\delta\mu\acute{o}\iota\omega$, cf. the case of $\text{Ze}\ddot{\upsilon}$ (*i. e.* $\text{Z}\acute{\epsilon}\ddot{\upsilon}$) discussed above on p. 40, note. We might then see in such cases the trace of a still more stringent law in favor of the three morae; possibly the principle which underlies the recessive accent started strictly from that point.

Whatever this law of three morae is, it may be noticed right here that it is also the Greek law for enclisis, *i. e.* a Greek word can incline upon the preceding word only in such a way that the result does not produce conditions which are in conflict with the law of three morae as laid down above. So *e. g.* $\text{Ze}\ddot{\upsilon}\varsigma \mu\omicron\iota$ offers the conditions which are apparent in $\kappa\acute{\eta}\pi\omicron\nu$; $\kappa\alpha\lambda\acute{o}\varsigma \acute{\epsilon}\sigma\tau\iota$,² the same conditions as $\acute{\alpha}\zeta\omega\sigma\tau\omicron\varsigma$. When, however, it is desired to incline $\eta\mu\acute{\omega}\nu$, $\eta\mu\acute{\iota}\nu$, $\eta\mu\acute{\alpha}\varsigma$, or $\upsilon\mu\acute{\omega}\nu$, $\upsilon\mu\acute{\iota}\nu$, $\upsilon\mu\acute{\alpha}\varsigma$, the result is $\text{Ze}\ddot{\upsilon}\varsigma \eta\mu\omega\nu$, $\text{Ze}\ddot{\upsilon}\varsigma \eta\mu\iota\nu$ or $\eta\mu\iota\nu$ (with a shortening of the last vowel which may stand in connection with the removal of the tone from the ultima), etc. That is to say, owing to the fact that these words contain at least four morae they cannot become entirely enclitic, but become so as much as possible. The grammars³ (*e. g.* Hadley, §232) do not understand this phenomenon, when they describe $\eta\mu\omega\nu$, etc., merely as optional weaker forms, and not as enclitic forms.⁴ Aside from the testimony in favor of

¹ The circumflex in such cases is probably Indo-European, for in Sanskrit also the acute vowel on the *a* of *samā-* would be followed by the so-called enclitic *svarita* on the next syllable (*iā*), which seems to imply that the voice instead of sinking from the acute to lowest pitch without mediation, passes down gradually, and this amounts evidently to the same phonetic result as the circumflex in $\delta\mu\acute{o}\iota\omega$. See Whitney in the Proceedings of the American Philological Association, 1870, p. 9; Sk. Gramm. §85.

² The grammars falsely set up the paradigm $\epsilon\iota\mu\acute{\iota}$, $\acute{\epsilon}\sigma\tau\acute{\iota}$, $\acute{\epsilon}\sigma\mu\acute{\epsilon}\nu$, etc. The words are enclitics and receive this acute only when enclisis of the entire word is made impossible because the result would leave too many morae unaccented. The accent is therefore due to sentence-law and is not etymological. The true accent of $\acute{\epsilon}\sigma\tau\iota$ is preserved in orthotone $\acute{\epsilon}\sigma\tau\iota$, see below, p. 61. The reason why these words as well as $\phi\eta\mu\iota$, etc., are enclitic will be discussed in full below, p. 57.

³ Kühner calls it 'eine ganz eigenthümliche Art der Deklination,' I, p. 264.

⁴ The assumption of enclisis in the shorter forms ($\mu\omicron\iota$, $\mu\omicron\nu$), but of orthotonesis or a merely changed accent in the longer forms ($\eta\mu\iota\nu$, $\eta\mu\acute{\alpha}\varsigma$), apparently receives a certain kind of support from the Sanskrit, where the enclisis of the personal pronouns of the first and second persons, being evidently of a piece with the enclisis of the same persons in Greek, is also restricted to *monosyllabic* forms. The pronouns of the third person, *i. e.* the various demonstrative stems which perform that function, do, however, incline forms of more than one syllable freely, *e. g.* $\alpha\sigma\mu\acute{\alpha}\iota$ 'to him,' $\alpha\sigma\eta$ 'of him,' are used both orthotonically and

enclisis that is afforded by the parallelism of, *e. g.* μοι and μου, when compared with ἐμοί and ἐμοῦ, we have most interesting native authority to the effect that in Greek pronouns, the recession of the accent in accordance with the law of three morae was the substitute of enclisis when the word inclined possessed itself at least four morae. Wackernagel, in KZ. XXIII 458, cites from Apollon. Synt. p. 130, a passage, also treated by Lehrs, Quaestiones epicae, p. 123, which bears upon this question: ἡρέεσθη ἡ ἐγκλισις διὰ τῆς μεταθέσεως τοῦ τόνου, ἤκουσ' ἡμῶν . . . τῆς τάσεως μετατιθεμένης κατὰ τὴν ἀρχουσαν· ἡδυνάτει γὰρ ἐπὶ τὸ προκείμενον προσελθεῖν. This passage, from excellent ancient authority, proves almost beyond a doubt what seems in every other way also probable, namely, that ἡμῶν, ὤμων, etc., are cases of enclisis, and that, therefore, enclisis and recessive accent are ruled by the same law of three morae. The same principle is, of course, patent in other well-known attempts to observe the same law; in fact if we take the cases which Hadley gives in §107: ἀνθρωπὸς τις, παῖδες τινές, λόγοι τινές, we have in every case an enclisis which is rectified or rather cut short by the law of three morae, as exhibited in the general recessive accent; it is to be noted that the position of the tone on the fourth mora from the end is also exhibited here, when the penult has a long vowel and the ultima is short, οὗ φησι like ἡπειρος, λόγοι τι(νές) like ἄζωστος. It will be seen below, p. 56, of what importance it has been thought, that the laws which govern the scope of enclisis, and of recession of the Greek accent, are identical. Wackernagel's theory about the recessive accent, which has commended itself to the acceptance of most modern grammarians, is in the main based upon this coincidence.

IV.

If, in stating the most prominent views with regard to the peculiar character of Greek accentuation, we were to begin with Götting, this would be done in deference to a book which must still be kept at one's elbow in the study of this subject. In some respects it might

enclitically, cf. above, p. 31, note 2. It may be further said that the Sanskrit proves nothing against the enclitic character of such forms as ἡμῶν by the side of ἡμῶν, because it happens to possess different polysyllabic forms made from different stems by the side of the monosyllabic ones. It is not surprising that a language which can choose between *asmdbhyam* and *nas* for the dative plural of the personal pronoun of the first person, should choose *asmdbhyam* when it required an orthotone form, but *nas* when it desired enclisis. The Greek has no such choice in the cases involved.

still be necessary to warn against it, while in others it might be mentioned profitably as a scientific *curiosum* of efforts in this direction, not as yet fifty years old. Göttling might also perhaps deserve a mention because he represents the last attempt to account for Greek accentuation, entirely out of itself, though even he occasionally takes a glance at the incipient work of comparative philology—he often refers to Humboldt and Bopp—or brings on some real or seeming parallelism from some other language. Occasionally again he sees farther than some of his successors, as when he recognizes the fact that the recessive accentuation began in the non-Aeolic dialects with the finite verb. The neglect of this fact is one of the weakest spots in the theory of Misteli-Hadley, which will be discussed immediately. Yet the limited space of an article forbids any systematic mention of Göttling's views, and as the views of Benloew and Bopp are already disposed of, we can at once turn to the Misteli-Hadley theory. Misteli's theory on the peculiar form of Greek accentuation was based upon comparative studies as well as 'philological' investigations in the Greek grammarians. It was first laid down in Vols. XVII, XIX and XXI of Kuhn's *Zeitschrift*, and afterwards embodied in the form of a book, whose title was given above, p. 37. In the period between Misteli's articles and Misteli's book there appeared Hadley's article in the *Proceedings of the American Philological Association* (cited *ibid.*), an article which aimed to rectify Misteli's theory, and which extended it by bringing in the Latin within the framework of the theory. Therefore the name Misteli-Hadley theory.

The key to the explanation of the three-syllable or three-morae accent according to this theory is the assumption of a middle-tone (*mittel-ton*) which, already in the parent-language, followed immediately upon every summit-tone, as a kind of intermediate step which served to bring the voice gradually from the musical height of the summit to the lowest depth (the toneless syllable). Nowhere was the passage from the summit-tone to tonelessness in the same word one which did not involve this middle-tone. If there were syllables left in the word after the two which are bespoken for the summit-tone and the middle-tone, these—and their number is left indefinite—are toneless, or according to the preferable terminology of the German receive the 'tief-ton.' This theory of a middle-tone is suggested in the first place by the Vedic Sanskrit. This possesses a mode of accentuation which distinguishes three kinds of tone, 1. a higher (*udātta* 'raised') or acute; 2. a lower (*anuddātta* 'not

raised'), i. e. toneless or 'tief-tonig'; 3. a third, which is called *svarita*, according to Whitney §81 is always of secondary origin, being the result of actual combination of an acute vowel and a following toneless vowel into one syllable. This is uniformly defined by the natives as compound in pitch, a union of higher and lower tone within the limits of a single syllable. It is thus identical, as far as can be seen, with the Greek and Latin circumflex, and in all probability goes back with the circumflex to the common I. E. period, as e. g. in the case voc. Ζεῦ : *dyāūs* = nom. Ζεὺς : *dyāūs*, discussed on p. 40, note 2.

So far everything is in reasonable accord with Greek notions of accent. But there is a further element. 'The Hindu grammarians agree in declaring the (naturally toneless) syllable following an acute, whether in the same or in another word, to be *svarita* or circumflex, unless indeed it be itself followed by an acute or circumflex, in which case it retains its grave tone. This is called by European scholars the enclitic or dependent circumflex,' Whitney, §85. Misteli and Hadley then impugn the statement of the native grammarians that this was a circumflex, and regard it as incomparably more probable that this *svarita* is a middle-tone. And Whitney, who is the first authority in matters of native Vedic grammar, says (§85) 'This seems to mean that the voice, which is borne up at the higher pitch to the end of the acute syllable, does not ordinarily drop to grave pitch by an instantaneous movement, but descends by a more or less perceptible slide in the course of the following syllable. No Hindu authority suggests the theory of a middle or intermediate tone for the enclitic, any more than for the independent circumflex. For the most part, the two are identified with one another in treatment and designation.' Whitney's opinion with regard to the enclitic *svarita*, while it denies it the name of middle-tone, does, we can see, nevertheless support a kind of tone which does not lie very far removed in its nature from that middle-tone in favor of which Misteli and Hadley argue.

But on the other hand the testimony for a middle-tone in Greek which attaches itself immediately to the summit-tone in the manner of the enclitic *svarita* is extremely weak, in fact may be said not to exist at all. Not that there is not mention made by the ancients of other accents than the three familiar ones. Aristotle, *Poetica*, ch. 20, and *Rhet.* 3, 1, 4 mentions a μέσον in addition to the ὀξύτης and βαρύτης of Plato, and this, according to Misteli, p. 44, note, and Hadley, *Cu. Stud.* V 417, is probably a middle-tone, though both

admit the possibility that the circumflex is indicated by it. The Greek grammarian, Tyrannio from Amisus, who was captured by Lucullus and brought to Rome, reports four accents according to Varro (in Servius de accentibus, cf. A. Wilmans de M. Terenti Varronis libris grammaticis, p. 187). Varro mentions other Greek grammarians who report more than three accents; there are in fact those who report six accents altogether. Misteli seeks further (§7, p. 50) to fasten this middle-accent immediately after the summit-tone, in a manner parallel with the enclitic *svarita*, by the aid of a well-known passage of Dionysius of Halicarnassus de comp. verborum liber, section XI, but in this attempt he positively fails. The passage reads *διαλέκτου μὲν οὖν μέλος ἐνὶ μετρείται διαστήματι τῷ λεγομένῳ διὰ πέντε*, i. e. the two limits of tone in spoken speech (between summit-tone and low-tone) are said to be a fifth. Now Misteli argues that this interval must have been mediated by the middle-tone in passing from an accented syllable to an unaccented one, because the unmediated skip of the voice through a fifth would give to the language 'einen schneidenden und widerwärtigen character,' and because Greek 'speech would move in extremes' in such a case. But as Masing, *loc. cit.* p. 23, points out, another passage in the same author makes this construction impossible. For Dionysius continues, not many lines beyond this passage, with the antithesis to the *μέλος διαλέκτου* in the following manner: *ἡ δὲ ὀργανικὴ τε καὶ ψῳδικὴ μουσα διαστήμασί τε χρῆται πλείοσιν, οὐ διὰ πέντε μόνον, ἀλλ' ἀπὸ τοῦ διὰ πασῶν ἀρξαμένη, καὶ τὸ διὰ πέντε μελωδεῖ, καὶ τὸ διὰ τεσσάρων, κ. τ. λ.* 'Music, however, instrumental as well as vocal, employs several intervals; not only fifths, but, to begin with octaves, next fifths, fourths, etc.' It is evident from this passage that Dionysius recognizes a plurality of intervals only for music and not for common speech, and it appears that according to this author there is but one interval, the fifth, in use in speech.

Moreover, this passage by no means certainly describes word-accent; so e. g. Göttling, who by the way denies that Greek word-accent was musical at all, construes this *διαλέκτου μέλος* as a rhetorical sentence-accent. Certainly it cannot be brought in as testimony in favor of that special kind of middle-tone which follows every summit-accent. Hadley does indeed recognize that the testimony of the ancients for it, or for that matter any middle-tone, leaves much to be desired; but argues that the peculiar effectiveness of it in the theory which he defends and extends is the surer testimony in favor of its actual existence.

The theory is then completed by the following assumption, which is to account for both Greek and Latin accentuation: *There was developed in the Graeco-Italic division of the family, after they had separated from the common stock, a disinclination to allow more than one toneless syllable to follow upon the middle-tone*; this disinclination caused a moving forward of the summit-accent to such a position that there was room after it, and after the middle-tone which necessarily followed it, for only one toneless syllable. Thus originated the Graeco-Italic law by which the summit-accent is restricted to one of the last three syllables of a word. The immediate ancestors of the Greeks and Romans, the 'Graeco-Italians,' before their separation from one another, accented their words alike according to this simple law, *e. g.* *λείπομην, *ἄνθρωπον, *γάιδερēs, *légendus, *i. e.* all words which originally had the summit-tone *before* the antepenult simply shifted it to the antepenult, thus producing a very special cadence agreeable to the Graeco-Italic ear, *summit-tone, middle-tone, tonelessness* (low tone). In words which did not have the tone anterior to the antepenult, words like λελυμένος, χαλεπός, the accent remained undisturbed; for here there was no room for the violation of the law that the middle-tone should not be followed by more than one toneless syllable. But as Greeks and Italians divided off they developed their common three-syllable tone-law in a manner which led to pretty sharp differences. The point of departure from the Graeco-Italic law was the *toneless* syllable in the cadence for the Greeks, the *middle-tone* for the Italians.

Let us first remain a while with the Greeks. They developed a dislike for a *long* toneless, *i. e.* final, syllable, so that the Graeco-Italic cadence of summit-tone, middle-tone, toneless syllable, was modified for the Greek into summit-tone, middle-tone, and *short* toneless syllable, whenever the accent had, originally, in I. E. times, stood before the antepenult. In order to exhibit the application of this law, Hadley divides the phenomena of the Greek recessive accent into four divisions, and one need but remember in addition that he regards the circumflex as a compound accent containing both summit and middle-tone, in order to understand his reasoning.

1. The simplest case. The acute cannot stand on any syllable before the antepenult, therefore I. E. *λείπετο becomes Greek ελείπετο.

2. The antepenult must, if it takes the accent, take the acute; *ελείπετο (*i. e.* *ελείπετο) is impossible, because it leaves two toneless syllables at the end.

3. When the penultimate carries the accent and the ultimate contains a long vowel, then this must be the acute, *τοιαύτη*, not *τοιαῦτη* (= **τοιαῦτη*), because this would result in a *long* toneless syllable.

4. A long vowel in the penultimate must take the circumflex if the ultimate is short, *τοιούτος*, not **τοιούτος*, because there would be no room for the toneless syllable.¹

This method of accentuation in the separate life of the Greek also did not gain ground when it was necessary to draw the summit-tone back from the end in order to gain the desired cadence. Therefore types like *λελυμένος*, *λιπών*, remained undisturbed.²

Only one division of the Greek people, the Aeolians of Asia Minor, took also this step completely, that is they subjected their entire accentuation to the law of cadence, summit-tone, middle-tone, low tone, therefore *λελύμενος*, *χαλέπως*. Where the entire cadence was not to be procured, as in *σοφός*, they drew the accent back at least as far as possible, *σόφος*.

The theory then proceeds to explain the Latin accent by assuming that the Graeco-Italic cadence-accentuation there also received a modification, namely, that there developed with the Italians a disinclination against a long middle-tone, so that the Latin cadence became summit-tone, short middle-tone, low tone. We will return to the Latin further on and see that this theory accounts for the Latin system about as well as for the Greek. At present the Greek will be dealt with alone.

1. In the first place it has been shown that the assumption of this middle-tone following every summit-tone is a purely theoretic one, and that the testimony of the grammarians in favor of such a middle-tone amounts to nothing at all. Not that it is to be supposed that the Greek word did not possess subsidiary tones just as much as words of to-day; but the assumption of a special middle-tone which must follow the summit, implying that the pitch of the summit was especially high, so as to stand in need of a mediator between it and the low tone, is warranted by no fact of Greek grammar or

¹ This is the weak spot in the arrangement. The theory by which the explanation of the Greek accent is here attempted does not in reality claim that the cadence, *summit-tone*, *middle-tone*, *low tone*, must be established in every case; it makes only the negative claim that after summit-tone and middle-tone *no more than one* low tone should follow. This condition would be satisfied as well by **τοιούτος* as by *τοιούτος*.

² This rule knows exceptions from the earliest times. So e. g. nouns in -*τις* (-*σις*), *ρύσις*, *τίσις*, are originally oxytone formations, Sk. *srutis*, *cittis*, and yet appear in all periods of the language with recessive accent, cf. below, p. 50.

tradition. The passage of Dionysius not only proves nothing, but if it speaks of word-accent at all, disproves the existence of any interval in the *διαλέκτου μέλος*, except the fifth.

2. The assumption of a Graeco-Italian accentuation (*ἐλείπομην*, *legendus*) stands entirely in the air. Not one historical fact is in its favor; it is solely based upon the fact of the restriction of the accent to the last three syllables. At the time when Misteli and Hadley wrote, the assumption of a Graeco-Italic period was very generally, though even then not universally, accepted. It is to-day a theory of the past. In just that particular factor of form which stands in especially close relation to accent, namely, vocalism, these families are about as far removed from one another as possible. Further, it will be urged below that the Greek recessive, or, to speak with Hadley, cadence-accent, began with the *verb*; it is precisely in the verb that Greek and Latin have diverged so extensively that mere fragments of the older system of formations are left in the latter, and it is altogether improbable that the Latin should have saved an old system of verbal accentuation for a new and obscure set of formations.

3. The assumption of the sequence, summit-tone, middle-tone, and short toneless syllable, is after all nothing more than the formulation into a more complicated shape of the simple law that the recessive accent does not recede beyond three, or in one case (forms like *ἄζωστος* and *ἡπειρος*) four morae. The theory does not find it possible to free itself from the count by mora any more than the formulation by which the accent was described above. While it appears to dispose of the case of *ἄζωστος* better (for here it was necessary above to assume recession to four morae), it is deficient in cases like *τοιούτος*, because it does not account for the constant circumflex, cf. p. 48, note 1, which on the other hand is accounted for perfectly within the theory of the three morae.

4. Finally, the last objection is one which more than any other undermines the middle-tone theory. The original I. E. succession of summit-tone, middle-tone, low tone, it is claimed was in Graeco-Italian times moved down a place or two or even more in order to pander to a dislike on the part of the Graeco-Italians to allow more than one toneless syllable after the middle-tone. An aesthetic dislike which is powerful enough to reform the accent of an entire language in a thoughtful, laborious manner, is a sufficiently doubtful factor in modern linguistic explanation. It cannot exactly be called a phonetic law, because a phonetic law acts spontaneously, and

would not be likely to count the syllables of a certain word, and then, upon finding that the summit-tone upon a certain syllable would leave too many toneless syllables at the end, move it down a sufficient number of morae to ward off such an event. At least so complicated a process must seem highly improbable when it is compared with the workings of such a law in other quarters. Yet the explanation as a phonetic law might, for lack of a better one, be accepted with reserve, but for the fact that the theory fails to account for a strictly grammatical, and not aesthetic, fact connected with it; namely this, that the recessive accent has most certainly in Greek begun with the finite verb, *where there is practically no exception to it*; that it excludes, with particular care, non-finite forms of the verb in the same tense-system and in evident connection with finite forms, exhibiting thus on Greek ground a most outspoken character as a grammatical quality of finite verbs: *ἔλιπον*, *ἐλιπόμην*, *λίπω*, etc., but *λιπών*, *λιπεῖν*, *λιπέσθαι*, etc. Of course noun-formations are not spared in historical times. But here the tendency is not regulated by any traceable law. Certain noun-categories become recessive; others, with apparently the same claim to favor, do not; so adjectives in *-ύς* *versus* nouns in *-τις* (*σις*).¹ It is in fact perfectly clear that the recessive accent in Greek, whatever its explanation, started with the finite forms of the verb, and thence succeeded in attacking nominal formations also; it cannot, therefore, have been due to the disinclination of the Graeco-Italians to allow two toneless syllables after the middle-tone. Such a cause cannot have differentiated between noun and verb.

V.

The strength of Misteli's system as completed by Hadley seems at first sight to lie in the fact that it includes the Latin, which shares with the Greek the sufficiently remarkable quality of restricting the summit-tone to the last three syllables of a word. This coincidence Hadley explains by the assumption of a Graeco-Italic accent which knew no restriction except this, that the assumed I. E. cadence of summit-tone, middle-tone and low tone, when it began before

¹ Both are originally oxytone noun-formations; the adjectives in *-ύς* have remained so, *θρασύς* = Sk. *dhṛuś*, *βραδύς* = Sk. *mṛduś*, *πλατύς* = Sk. *prthuś*, *ἐλαχύς* = Sk. *raghuś*, *παχύς* = Sk. *bahuś*, *βαρύς* = Sk. *guruś*, etc.; the nouns in *-τις* have without exception become recessive, as in the cases of *ῥόσις* and *τίσις*, cited above, p. 48, note 2.

the antepenult, was moved down to avoid more than one low tone at the end of the word. After the separation of the Greeks from the Italians, the two peoples refined the common Graeco-Italic accent; the Greek by insisting upon summit-tone, middle-tone, *short low tone*, the Lat. by developing a fondness for summit-tone, *short middle-tone*, and indifferent low-tone. Accordingly the Graeco-Italic accentuation, which still permitted forms like *légendus*, *gaudērēs*, etc., was modified; and this modification again becomes at least superficially easy if the definition and description of the Latin circumflex, as given by the Latin grammarians, is remembered, cf. Corssen, Ueber Aussprache, Vocalismus und Betonung der lateinischen Sprache, II, p. 800 fg. According to them the Lat. circumflex was employed upon long monosyllables (excepting *nē* with the imperative), and on penultimas with long vowels (not, however, by position) when the ultimate was short. Everywhere else the acute was employed according to the remaining well-known rules. How much value is to be attached to the statement that in Latin *gaudērē* had the circumflex, made as that statement is by grammarians who were under the influence of Greek grammar down to the minutest particulars, is after all an open question; even Curtius, a strong supporter of the Graeco-Italic accentuation, has said in my hearing that "der Circumflex im lateinischen bedeutet überhaupt nicht viel, ist mehr auf Theorie gegründet."¹

But the assumption of the existence of the circumflex, and the cadence projected for the Latin, summit-tone, *short* middle-tone, and low-tone, seemingly procure a satisfactory arrangement of the historical phenomena.

The simplest case is that of types like *légērē* and *légērēt*; here the cadence, summit-tone, short middle-tone, and low-tone, is easily procured. In the type *gaudēre*, the same result is procured by dividing the circumflexed *ē* between summit-tone and middle-tone, quasi **gaudēērē*. Greater is the difficulty in the type *gaudērēs*, for the first *ē* is not circumflexed, therefore the syllable *rēs* must furnish the place for both middle-tone and low-tone, **gaudērēs*; but who will after all believe that there was so thoroughgoing a

¹ Petrus Lange is the strongest assailant of the Latin circumflex, in three treatises: *De grammaticorum latinorum praeceptis quae ad accentum spectant*, Bonn, 1857; in a critique of Weil and Benloew's *Théorie générale de l'accentuation latine*, in *Fleckensen's Jahrbücher*, Vol. 79, 1859, p. 44-71; *Untersuchungen über den lateinischen Accent*, in *Philologus* 31, p. 98-121.

difference in the accentuation of the two words *gaudērē* and *gaudērēs*, or upon what tangible fact in the life of the language is this differentiation based? And in the type *legēndūs* we are left without a place for the low-tone, because *gen* cannot take the circumflex, **legēndūs*, while the type *legēndī* again divides its final long syllable between middle and low-tone, **legēndīi*. Here the arrangement is weakest; it institutes a complicated difference between the accent of *gaudērē* (*gaudērē*) and *legēndūs* (*legēndūs* \equiv), which is devoid of all foundation in the actual and not hypothetical life and history of the language.

Of the four main objections which were urged above against this theory when applied to the Greek, three hold good against Latin also; others can be added from the point of view of the Latin itself.

1. The still more complete absence of testimony in favor of a middle-tone which regularly followed the summit-tone. There is no such testimony at all to be obtained from the Latin.

2. The assumption of the Graeco-Italic accent, against which what was said above, p. 49, is to be compared.

3. The combination with Greek recessive accent, which has originated with the verb, and will be shown below to be due to an I. E. law pertaining to the verb, which therefore separates that method of accentuation incontrovertibly from the Latin, where the special influence of the verb is not to be thought of, and has not, as far as is known, ever been suggested.

4. The very similarity of the Latin accent to the Greek becomes, if we look more narrowly, reduced to the restriction of the tone to the last three syllables. In every other respect the accentuations of the two languages stand in the sharpest opposition to one another.

a. In Greek the summit-tone is not excluded from the last syllable, in Latin it is so entirely.

b. In Greek the penult is absolutely without influence as far as deciding the position of the summit-tone is concerned; in Latin the penult is the pivot around which everything revolves, its quantity decides the position of the accent.

c. Just as indifferent as the penult is in Greek, so in Latin the ultima has no influence upon the position of the accent, while in Greek it is the main factor in determining the position of the recessive accent.

5. A fifth reason against the assumption of the Graeco-Italic accent is presented by the fact that there are distinct traces in Latin of an accentuation which was not restricted to the last three syllables

The law of three syllables was preceded in an archaic period by a freer accentuation, the vestiges of which are not sufficiently numerous to make it possible to describe its exact character, though enough can be seen to render it probable that it did not know this restriction, at least not in the form of an inviolable law.

a. Very strong indications of a different régime in matters of accentuation are contained in the vowel changes which attend reduplication and composition. The reduplication and prepositional prefixes in Latin exercise an influence upon the vocalism of Latin roots which would remain unexplained, unless it be assumed that they once regularly received the accent. Thus, when *jūro* becomes in composition *pē-jēro*, *facio* becomes **cōn-ficio*, *gnōtus* (with very old vocalism = Greek *γνωτός* = Sk. *jñāts*) becomes *cō-gnītus*; it is necessary to assume that the accent stood originally upon the preposition at a time when the root-vowel was not as yet weakened (**pē-jūro*, **cō-gnōtus*), and therefore accented in a manner thoroughly different from the laws of accent in historical times; for it would be incredible that this weakening of the root-vowel should take place under the summit-tone (**pē-jūro*, etc.). This accentuation of the preposition with the finite forms of the verb inclining upon them is Indo-European, and at any rate an accidental condition which must be admitted for the Latin at some remote period. On the same principle *con-ficio* must have originated from a prehistoric **cōn-facio*, with the accent on a syllable anterior to the antepenult. And, further, in the perfects, *tetigi*, *pepigi*, *cecini*, *fefelli*, *cecidi* (: *cado*), *cecidi* (: *caedo*), the weakening of the root-vowels is due to the accentuation of the reduplicating syllable; this leads to forms like **tētigimus*, etc., which again have the tone before the antepenult. Moreover, certain Italian forms not Latin support this view. E. g. the Oscan forms *fe-fāc-id* (perfect optative third singular), or *fe-fāc-ust* (future perfect third singular), when compared with Latin *con-fic-io*, or with an ideal reduplicated **fē-fic-i* from **fē-fāc-i*, show that this regular weakening of the root-syllables is a special Latin phenomenon; so also Umbrian *Jupater* is probably the common Italian predecessor of Latin *Jupiter*. If this weakening of the vowels, as would appear from such examples, is not common to all Italian dialects, but belongs especially to the Latin branch, and if it is assumed correctly that these weakenings would be impossible under an accent like *fēfācust*, *fēfācid*, we have an historical corroboration in actually occurring Italian words of the assumption that the three-syllable accent is a

special Latin feature, not common even to all the Italian dialects; this disproves a Graeco-Italic accentuation directly on Italian ground, aside from the general considerations which have been brought on above. It must be assumed, then, that *fē-fāc-id* was the old accentuation; this accent weakened the root-syllable *fāc* in Latin alone, and after that pattern the same process is assumed necessarily for forms of more than three syllables, *cōnficio*, *dīspliceo*, *dīsplicemus*, *dīsplicēbamus*, etc.¹

b. Other isolated forms, not within verbal paradigms, lend also a certain support to the assumption of a freer position of the Latin accent previous to the purely quantitative one of historical times. Thus, when early *ōpitumo-* becomes later *optumo-*, it seems very improbable that the *i* should have been lost under the accent; an original accentuation, **ōpitumo-* seems much more probable. *Samnium* is for **Sabinium*, (cf. Oscan *Safnim*); the accent of this **Sabinium* seems again to have stood on the first syllable, this alone accounts satisfactorily for the loss of the *i*. Again, when the Greek Πολυδεύκης passes through *Polouces*, *Pollūces*, into *Pollux*, it seems also improbable that these weakenings at the end should have taken place under the accent *Poludeūces*, though in a proper name it is not certain but what popular etymology may have contributed to the corruption. Other forms favorable to this older accentuation are cited by Corssen, *Aussprache*, *Vocalismus*, *Betonung*, etc., II², 902 fg.; *Kritische Beitrage*, 577 fg.

c. Less important is the statement of the grammarian Nigidius Figulus, as reported by Gellius, that proper names in *io* in the vocative accent the first syllable, e. g. *Valeri*, fr. *Valerius*. Gellius

¹A great part of this argument against the assumed Graeco-Italian three-syllable law was made as early as Kuhn's *Zeitschrift*, Vol. IX, p. 77, by Lottner. Curtius, in an article in the same volume, p. 321 fg., attempts to refute Lottner's assumption that forms like *conficio* prove an accent before the antepenult (**cōnficio*), by assuming that this weakening process started in forms which contained but three syllables, e. g. *cōn-facit*, *cōnficit*, and was thence generalized for the entire paradigm; accordingly the paradigm of this tense was originally **cōnfācio*, *cōnficis*, *cōnficit*, **cōnfācimus*, **cōnfācitis*, **cōnfāciunt*, and only later the long forms assumed secondarily the vowel of the short ones, *conficimus*, etc. This explanation is insufficient, first, because there is no trace of any such forms as **confacio* to be found anywhere in Latin; secondly, because it is impossible to assign any reason why the numerically stronger forms like **cōnfācio* should have *always* succumbed to those with the weaker vowels, and why the reverse process did not occasionally take place. There is too much consistency and regularity in the use of the weak vowels to render such an explanation at all probable.

himself, it appears, remarks that such a pronunciation would have been laughed at in his day, and Nigidius Figulus was also in other respects a peculiar scholar, who set up a special terminology and indulged in other idiosyncrasies for accentual words. The possibility that he merely theorizes on Greek vocative patterns is not to be denied. But Benfey, *Der indo-germanische Vocativ*, p. 51, enthusiastically defends his view, saying that even if in Gellius's time such a pronunciation was laughable, it may nevertheless be a learned possession of Nigidius, a quasi 'lectio doctissima,' and employs it to establish by its aid the Indo-European accentual law, otherwise also secure enough, namely, that vocatives were accented on the first syllable, regardless of the accent of their themes under other circumstances.

Against all this stands then the single fact of the restriction within three syllables, a fact striking enough on the outside, but yet not very significant if we remember certain other facts. The possibility that two I. E. languages, starting from the common stock and from a common point of departure, should leave that point behind them, work out their accentual destiny separately and very differently, and should yet arrive in the end at a certain similarity in historical times, can be proved in more striking cases than that of Greek and Latin. Polish, we saw above, regularly accents the penult; the same thing is true of the Cymric (Welsh); while their respective closest sisters, the Bohemian and the Irish, accent the first syllable. No one would therefore presume to hint at any kinship either between Polish and Cymric, or between Bohemian and Irish, closer than that warranted by the general fact that they all belong to the I. E. family. On the other hand the Lithuanian and Lettish both belong to the Lithuanian branch of the Lithu-Slavic family, and they are so closely related to one another in sound and form that Lithuanian may be changed into Lettish by the observance of a moderate number of phonetic laws; yet they have gone so far apart in their accentuations that the Lithuanian still preserves, to a fair extent, the free I. E. accentuation, while the Lettish regularly accents the first syllables of all words. And it may not be improper to point out that the Arabic shows a striking resemblance in its laws of accent with the Latin, as may be seen in Caspari's *Arabic Grammar*, fourth edition, Halle, 1876, p. 22. It will appear that Arabic accentuation is identical with Latin, (1) in never accenting the last syllable of words of more than one syllable; (2) in always accenting a long penult; (3) in never accent-

ing a short penult. In fact it possesses every law of the Latin excepting its restriction of the tone within the last three syllables. Who would on that account alone attempt to establish kinship between the accentual methods of the two languages? Therefore the supposed common origin of the Greek and Latin systems of accentuation stands upon the weakest possible ground, and an explanation of the Greek recessive accent which ignores the external similarity of the Latin may now be approached with reasonable confidence.

VI.

The explanation of the Greek recessive accent must start from *the finite forms of the verb*, where alone it is evidently at home. This special nexus between the verb and the accent is not noticed by Misteli and Hadley, and has been pointed out above as the weakest point in their system. Yet the fact had been noticed and utilized to a certain extent even by Göttling, who puts the verb on the same level with the Aeolic accent in this respect. It is Wackernagel's merit and the reason of his success that he began his investigation with this fact as the basis. And he has succeeded, as will be now shown, in explaining the Greek accent, as far as the verb is concerned, by a series of qualities or laws of treatment to which the finite verb was subjected in *sentence-nexus* in I. E. times, so that the Greek recessive accent appears to be a development of tone-laws pertaining to *sentence-accent* in distinction from *word-accent*. We must from the start let the etymological accent of the individual word lie latent, or better, keep in mind that the etymological accent of a word may under certain circumstances vanish under the influence of sentence-accentuation.

Wackernagel starts with the observation that both in Greek and in Sanskrit the finite verb is occasionally subjected to enclisis, of course with the greatest possible differences in other respects. In Sanskrit, every finite verb becomes enclitic under certain conditions and according to certain laws (see Whitney, *Sk. Gramm.* §592 fg.). In Greek only two verbs in the present indicative, εἶμι and φημι, are enclitic. The old explanation, according to which this enclisis was due to paleness of meaning, he rejects justly, because φημι is no paler than λέγω.¹ He assumes, then, that this restriction of the

¹ So far is this from being true that ΦΗΜΙ is, and continues to be, the strongest of the verbs of saying, often meaning 'aver,' 'asseverate,' and sometimes actually taking μή as if a verb of swearing. λέγω in Homer is not yet a full verb of saying.—B. L. G.

enclisis to these two indicatives is due to the Greek law of enclisis, according to which an enclitic word may not contain more than two syllables and three morae. This, it will be remembered, was exhibited in detail above, p. 42, where the examples *Zeús ĥmyn*, etc., with enclisis of the orthotone *ĥmĥn*, was shown to be the substitute of the enclisis which is exhibited in *Zeús moi*. Of course these are not the only individual Greek finite verbal forms which, in spite of this restriction to three morae, could be inclined, but here Wackernagel recognizes with consummate acuteness that the present indicatives of these roots represent the only cases in the language where the entire paradigm of the tense or mood would allow the enclisis throughout. A form like *λέγω, πείθε, ἦσαν* would by itself be capable of enclisis, but not *λέγομεν, λέγετε, πείθετε, ἦσιν*; therefore enclisis could not sustain itself in the paradigms to which these words belong; on the other hand, the *undisturbed* capacity for enclisis of *εἶμι, (εἶ), ἐστί, ἐσθον, ἐσμεν, ἐσθε, εἰσι; φημι, (φῆς),¹ φῆσι, φατον, φαμεν, φατε, φασι*, without a single interloper that would be debarred from enclisis by containing too many morae, is the secret of the preservation of their enclisis. The test for other tense or mode-systems is easily made and will always bring up some form containing either more than two syllables or three morae. The enclisis of these two present indicatives is then identical with the enclisis in *Zeús moi*.

The question now arises: What has happened to the other verbs which were debarred from enclisis by containing too many morae? Precisely the same treatment that has happened to an enclitic pronoun of too many morae. They were inclined as much as possible, in accordance with the principle exhibited in the change of orthotone *ĥmĥn* to enclitic *ĥmyn*, and orthotone *ĥmĥn* to enclitic *ĥmyn*; just as *Zeús ĥmyn* contains orthotone *ĥmĥn* changed to *ĥmyn*, just so does *Zeús doíĥ* contain the prehistoric *δοίĥ* = Sk. *deyāt*; however, not in its orthotone, but in its enclitic form, for *δοίĥ* is the enclitic to **δοίĥ* just as much as *ĥmyn* is the enclitic of *ĥmĥn*. This may be formulated in the following proportion:

$$\text{Zeús moi} : \text{Zeús ĥmyn} = \text{Zeús ἐστί} : \text{Zeús δοίĥ}.$$

The recession of the Greek accent in the finite verb is accordingly everywhere not due to a process of accentual change within the word, but to a secondary accentuation which is a substitute for enclisis. It is false, therefore, to compare directly the accent of

¹ *El* and *φῆς* will be discussed further on.

finite forms with corresponding accent, *e. g.* in Sanskrit. Thus, the accent of *δοίη* is not to be compared with that of Sk. *deyât*, but with *deyât*, *i. e.* the enclitic form; *πεφύ(κ)αμεν* not with *babhuvimá*, but with *babhuvima*; *Ζεὺς ὄρνυσι* is Sk. *dyāus ṛṇoti* (the verb enclitic).

But in one respect the Greek enclisis of the finite verb has overstepped what was no doubt an old law accompanying it, a law which appears in the Vedic Sanskrit, cf. Whitney, Sk. Gramm. §591 fg. The Sanskrit verb is inclined in independent paratactic clauses, except when it stands at the beginning of a clause; the verb in hypotactic clauses, or at the beginning of a paratactic clause, etc., is orthotone. The Greek, it must be supposed, has forgotten and given up this original distribution of orthotonesis and enclisis, and has spread the analogy of the inclined forms over the entire finite verb.¹

If the recessive accent of the Greek finite verb is regarded as a substitute for enclisis, then we can understand why the participles and infinitives are exempt from this accent with such perfect regularity. These forms were never subject to enclisis and have therefore retained their etymological accent in Greek undisturbed, even more so than noun-categories which stand in much looser relation to the finite verb; for these have often adopted the recessive accent. This result is obtained by comparing Sk. *bhāran* with *φέρων*, *ricān* with *λιπών*, *ṛṇvān* with *ὄρνυς*, *γῶν* with *λών*, *babhūvān* with *πεφνώς*; so also *λιπέειν*, *λιπέσθαι*, etc., which exhibit the same accent of the thematic vowel as in *λιπών*, have remained undisturbedly in the possession of their prehistoric etymological accent. In the same manner the accentuation of verbs compounded with prepositions is explained. The finite verb is inclined upon its preposition, *sām bhara* (written with tmesis in the Vedas) = *σύμφερε*, *āpi asti* = *ἔπειστι*; on the

¹ It is interesting in this connection to mention that the enclisis of the Sanskrit verb had been regarded in the light of a prehistoric quality of I. E. speech much before Wackernagel; to be sure only in a casual mention. In a programme of the gymnasium at Wismar, 1869, there appeared a paper by Sonne entitled 'Zur ethnologischen Stellung der Griechen,' in which he writes: When we see that in Sanskrit the verb of the principal sentence is inclined upon every preceding 'objectiv-bestimmung,' we believe that we must recognize in this phenomenon, as strange as it is to our European conceptions, a remnant of proethnic accentuation (p. 3, cited by Delbrück, Sprachstudium, p. 132, note). He has in mind the coinciding enclisis of Greek *εἰμι* and *φῆμι* in making his statement, but he never extended his idea in any way beyond this mere suggestion.

other hand, here again the forms which are not enclitic when uncompounded retain their accent, and the preposition loses its accent both in Greek and Sanskrit, ὑπολαβών, ἐπιών; in the same manner κάθεται and κατάκειται, but καθήσθαι, κατακείσθαι, cf. Whitney, Sk. Gramm. §1083.

Wackernagel turns next to the second persons εἶ and φῆς, which are orthotone, and would endanger his entire explanation unless their orthotonesis is explained. The explanation which is proposed is a totally different one in each case.

For εἶ an etymological explanation is attempted. This word is Attic and Ionic, but post-Homeric; it is a form, then, which is later than the period in which the enclisis of the verb was fixed. Possibly it may be restricted even to Attic alone, inasmuch as it has been removed by Stein from Herodotus.¹ In order to explain this late and contracted εἶ, Wackernagel assumes that it is a middle form *ἔσεσαι to ἔσομαι. Such a word, containing as it does three syllables, would, owing to the limitations of enclisis, not become toneless, but would appear with recessive accent as a substitute for enclisis in the usual way, and this *ἔ(σ)ε(σ)αι, *ἔεαι would then contract to εἶ, as *ποιέ(γ)ε(σ)αι, ποιέεαι becomes ποιεῖ. But there are at least two objections to this explanation. First, the natural explanation of εἶ, which seems to be almost unimpugnable, is a totally different one. The word, whether restricted to Attic or not, is evidently old; it is *ἔσαι = Sk. *dsi* = Zd. *ahi* = Goth. *is* = Lithuanian *esi* and Old Bulgarian *j-esi*;² the assumption of a ground-form *ἔσεσαι is therefore unnecessary and improbable. Secondly, Wackernagel has assumed with indubitable success that within one tense-system, forms which by themselves could have been enclitic became recessive by the attraction of the rest of the system; why has not the analogy of the enclitics in the paradigm of εἶμι succeeded in overcoming this single recessive example in its turn? It seems therefore much more probable that the lack of enclisis in εἶ is due to the influence of contracted forms in general. At the time when *ἔ(σ)αι contracted to εἶ, other contractions taking place at the same

¹According to Veitch, Greek Verbs Irregular and Defective, Stein and Abicht read *εἷς*, while Becker and Dindorf read *εἶ*.

²The Indo-European form of the second person singular was **esi*, e. g. the two *s*'s coming together from the root *es* plus the *-si* of the second person singular were simplified into a single *s* by some I. E. law of sound, before the separate existence of the languages of the family. Neither in Greek nor in Sanskrit would the theoretical **essi* lose one of its *s*'s. For the Sanskrit, see Whitney, Sk. Gramm. §166.

time received the circumflex so generally that this form received it also, and was protected from the attracting influence of the enclitic paradigm, which it belongs to, by that same contract character.

The case of $\phi\eta\varsigma$ is quite a different one. Long monosyllabic finite verbal forms in Greek are regularly perispomena, that is, barytone or recessive; so $\beta\eta$, $\phi\eta$ (or analyzed into morae, $*\beta\acute{\epsilon}\epsilon$, $*\phi\acute{\epsilon}\acute{\epsilon}$); if this word does not receive the circumflex, it is therefore not accented recessively or quasi-enclitically, but is orthotone. Wackernagel ingeniously finds the cause of this orthotonesis in its peculiar function. 'A speaker never gets into the situation in which he speaks to another person about his (the other person's) $\phi\acute{\alpha}\nu\alpha\iota$ in the present tense, without bringing the $\phi\acute{\alpha}\nu\alpha\iota$ of that person into relation to something else, or otherwise when the $\phi\acute{\alpha}\nu\alpha\iota$ of that person is still unknown to the speaker; in other words, grammatically expressed, $\phi\eta\varsigma$ occurs regularly in subordinate and interrogative sentences,' *loc. cit.* p. 461. That this rule is actually and not only theoretically true, Wackernagel then proceeds to show by bringing on all the passages in Homer and the tragedians in which the word occurs, p. 461-2, and his statistics bear him out completely.

The orthotonesis of this word in subordinate clauses is then identified with the regular orthotonesis of the verb in Vedic Sanskrit when it occurs in subordinate clauses (Whitney, *Sk. Gramm.* §595) and the orthotonesis in interrogative sentences, with a very similar rule for the Veda, according to which verbs in interrogative sentences retain their tone, or perhaps rather have their natural etymological tone, heightened still further by the rhetorical tone, natural in questions, cf. Whitney in Kuhn and Schleicher's *Beiträge*, I 200. It is clear that the criticism made above against the assumption that an old $*\acute{\epsilon}\sigma\epsilon\sigma\alpha\iota$ which functionally was not different from $\acute{\epsilon}\sigma\mu\iota$ should remain orthotone and resist the analogy of the rest of the forms of the paradigm does not hold good here, because there is a thoroughgoing functional difference in $\phi\eta\varsigma$ which might well hold it above the forces of assimilation; especially true might this be in the case of the peculiar interrogative tone, which this word is subjected to with especial frequency. In the later literature, as representatives of which Wackernagel brings on Plato and the comedians, this occurrence of $\phi\eta\varsigma$ in interrogative and subordinate clauses is not so strictly adhered to; he finds in 140 passages 18 not interrogative and not subordinate, but these passages are made to yield strong support to the correctness of his method in bringing on the Vedic accent for constant comparison; they also are explained

by Vedic analogies. The word *φῆς* occurs in these 18 passages in the first one of two paratactic clauses, *e. g.* Plato Gorg. 491 B, *ὁ μὲν γὰρ φῆς . . . ἐγὼ δὲ σοῦ τοῦναντίον*. Compare with this Whitney, §596: 'The verb of a prior (principal) clause is not infrequently accented in antithetical construction. Sometimes the relation of the two clauses is readily capable of being regarded as that of protasis and apodosis; but often such a relation is very indistinct.' Of course the Greek example comes under the head of antithetical construction; in the same manner the other 17 examples of Plato, etc., are readily disposed of. It seems that Wackernagel has beyond peradventure pointed out the correct reason for the peculiarly isolated position of the word *φῆς* in accordance with the rules of Vedic and Indo-European accentuation.

He turns further to various minor specialties of the recessive and enclitic accent, and explains them again in accordance with well-known laws of Vedic accent. Only the most interesting of these, the orthotonesis of *ἔστι*, will be mentioned. The older Greek grammarians, according to Lehrs, *Quaestiones epicae*, p. 126, know of no functional difference between *ἔστι* and *ἐστι*, but teach that the orthotone word stands at the beginning of the sentence and where certain particles, etc., immediately precede the word. According to some, only *οὐ* has this effect; according to others *οὐ*, *καί* and *ὥς*; *εἰ*, *ἀλλά*, and *τοῦτο* are also added by a few. With the exception of *τοῦτο* these words are either too weak to allow inclination upon them, or, like *καί*, are not real members of the sentence which they introduce, so that the *ἔστι* which follows stands in reality at the beginning of the sentence. This peculiarity is again explained by a rule in Whitney's *Sk. Grammar*, §593, 'The verb of a principal clause is accented when it stands at the beginning of the clause,' *e. g.* *syāma id indrasya çārmaṇi*, 'may we be in Indra's protection.'

Other details of Greek accentuation, which need not be repeated here, are successfully explained, and everywhere Wackernagel's results are strictly in accordance with the principles which have been stated above for all kinds of phonetic investigation, and they are themselves new proof of the success of such investigations when carried on with these principles. In the first place every line of his investigation is permeated with the thought that it is not allowable to discuss the accent of the separate I. E. language without

¹*E. g.* *prā-prā 'nyé yānti, pary anyā āsate*: 'some go on and on, others sit about.'

taking for a basis the reconstructed I. E. accent. Further, this I. E. accent could only change by regular phonetic law or by analogy. Both factors are shown to have been at work. The phonetic law is the Greek law of enclisis by which real historical enclitics appear accented, though in manner clearly enough a mere compensation for enclisis; the reason for this phonetic law lies within the province of phonetics just as, *e. g.* the rhotacism which changes in so many languages an *s* to an *r*.

The workings of analogy we saw in many ways; above all this, that the enclitic character of the verb in principal clauses has been extended to the verb in subordinate clauses. It would be interesting in this connection to count the number of principal and subordinate clauses in Homer; no doubt the principal clauses would preponderate, as they most certainly do in the Rig-Veda. Wackernagel is the first one who has clearly established any kind of law as regards the sentence-accent of the I. E. languages, the leading fact being the enclisis of the finite verb in principal clauses. His results prove completely the fact that the study of accent cannot be carried on from the point of view of the word alone, but that it must also consider the larger speech unit, the sentence, and perhaps ultimately also the smaller, the syllable.

Wackernagel does not carry his results beyond the finite verb, but he leaves no room for doubt that the nominal accent in Greek, so far as it is not archaic and etymological, is enclitic and recessive. No doubt the noun has to a large extent followed the verb in its enclisis; the Vedic accent leaves us here almost entirely, but yet not altogether. In the Veda the vocatives are accented only when they stand at the beginning of a sentence, or clause, or verse, elsewhere they also are enclitic; see Whitney, *Sk. Gramm.* §314, and Haskell in the *Journal of the American Oriental Society*, Vol. XI, p. 57 fg. Further, an adjective or genitive qualifying a noun in the vocative constitutes as far as accent is concerned a unity with it. Thus there arises in the case of a vocative in the middle of a clause a group of two or three, sometimes even more, unaccented nouns, cf. above, p. 31, note 2. The quantity of enclitic vocative material cannot have been very great at any period in any language of the family, yet it may have at least helped on the analogy of the verb in its inroads upon the noun. Possibly future investigations may succeed in pointing out the details of this process in an acceptable manner.

MAURICE BLOOMFIELD.

III.—ETYMOLOGICAL STUDIES.

II.

Liceo, liceor.

These words are generally brought together on the supposition that the first is used as the *passive* of the second. This supposition I hope to show is mistaken.

To begin with, it is most improbable that the relations between active and passive forms should be so entirely reversed and the consciousness of those relations so entirely destroyed that the same word should exhibit the *active* relation expressed by the *passive* form and the *passive* relation expressed by the *active* form. It has not been observed in discussing these words that, where the *same* voice has been adopted to express both the active and the passive side of an action, the verbs so used either come from different roots or else are differentiated in form. Thus we have:

Active: δρᾶν or ποιεῖν; βάλλειν; λέγειν; verberare.

Passive: πάσχειν; πίπτειν; κλύειν, ἀκούειν; vapulare.

On the other hand, *iacēre*, *iacēre*; *pendēre*, *pendēre*, &c., cf. Curt. Gr. Et.⁵ No. 625.

This strong *prima facie* probability against connecting these two words is strengthened by an examination of their usages.

First, if we are to assume that these two words have reversed the active and passive functions in this most extraordinary manner, we ought at least to be able to find some traces of the reversal. If we cannot discover an active use of *liceo*, the frequent use of deponent verbs in the passive at least entitles us to expect a passive employment of *liceor*. Now (1) *liceo* is said to be used in an *active* sense. But of the instances that can be cited, Mart. 6, 66, 4 rests on a sheer blunder, Diomedes 398, 25 is wholly indecisive, and the sole evidence remaining is Plin. N. H. 35, 10, 36, § 83, percontanti quanti liceret opera effecta parvum nescio quid dixerat, where *licerent* for *liceret* is an easy and probable correction, already proposed by Sillig.¹ Even if this doubtful sentence be admitted, it will be no evidence for writers of greater antiquity and fewer pecu-

¹ I may add that I have investigated the whole lexicology of *liceo* and *liceor* in the Journal of Philology, (English), Vol. XI, p. 332.

liarities than Pliny; and the active use of *liceo* may with justice be regarded as a later development, owing to *liceo* being thought a more rational form than *liceor* to express 'I put a price on.' (2) *Liceor* is never used in a passive sense. In the second place there is a marked difference in the meaning: *licere* is 'to be knocked down,' the result of the bidding; *liceri* is simply to bid, to offer. So long as *liceri* is going on, *licere* is impossible, so that the one cannot possibly be the active side of the other. To take two examples of *licere*. 'Omnia venibunt quique licebunt,' Plaut. Menaechm. 5, 9, 97, is 'everything will be sold to the highest bidder,' or 'for what it will fetch.' So Cic. Att. 12, 23, 5, quanti licuisse tu scribis, (if not from *licet*) means 'what they fetched.' So even in Pliny l. c., quanti liceret is 'what price he would put on them,' or, in other words, 'what was the final, the selling price,' not what he would bid for them; and Mart. 6, 66, 4, parvo cum pretio diu liceret, 'when the price stuck for a long time at a trifle,' 'when all he could get for her was a small price.' *Licere* in fact is used of the final offer that concludes the sale or bargaining;¹ *liceri* of any bid, as I need not adduce passages to show.

What then are the two distinct roots from which *liceo* and *liceor* come?

Curtius l. c. has given that of *liceo*. He compares it with *licet*, Greek λείπειν and Sanskrit *ric'*. So that *licet res tanti* will mean 'an article is left, the bidding leaves off' at a certain amount,'² *tanti* being a *locative*; see Roby, Lat. Grammar, Vol. II, § 1186, and compare the use of *stare*, *constare*.

Corssen³ supposes the root of *liceor* to be RIK, reach out. It is seen in *por-ric-ere*, etc., *pol-lic-eri*; Old High Germ. *reihhan*, Goth. *leihwan*, O. H. G. *lihan*, Germ. *leihen*, Eng. *lend*. And an examination of the original meaning of the German *bieten*, to bid, which was to hold out, as in *beut den Finger*, Keisersberg, inclines me to believe that this suggestion is probably the true one. The persistence of the middle form *liceri* in the sense 'to reach out' is very noticeable. Compare in Latin *polliceri*, *licitari*,

¹ In other words *licere* is the result of the *licitatio maxima*, Suet. Cal. 22: compare the passage quoted below from the Digest.

² The meaning and derivation of *licere* are well illustrated by Paul. Dig. 10, 3, 19, penes quem licitatio remansit. Another conjecture may be hazarded. The personal use of *licere* may be a development of the impersonal. The auctioneer may have said *licet*, 'you can have it,' when he knocked it down; then the article itself was said *licere*. So pretty nearly Curtius Gr. Et.⁵

³ I² 500.

which seems generally to mean 'to reach or lunge with a weapon' in fighting, and in Greek *ὀρέγεσθαι*, and for the usage *digito liceri* the Homeric *χερσὶν ὀρέξασθαι*.¹

From the same root RIK come besides *pol-lex* the thumb as standing out from the rest of the hand; and not improbably *pol-ling-o*, to lay or stretch out a corpse for burial, and *pol-linc-tor* an undertaker.

Trio, Septemtriones.

These words have been discussed by Prof. Max Müller.² In his discussion there are some points to which exception must be taken.

The first of these is his summary treatment of Varro's authority. Varro says 'triones enim boves appellantur a bubulcis etiamnunc, maxime quom arant,' etc. On this passage Prof. Max Müller observes: "As a matter of fact *trio* is never used in this sense except once by Varro for the purpose of an etymology"—this is a gratuitous insinuation—"nor are the seven stars ever spoken of elsewhere as the seven oxen, but only as the oxen and shaft—*boves et temo*—a much more appropriate name." It is not likely that any one will follow Max Müller in attributing fraud to Varro, and in a matter like this it is impossible that he should be mistaken, especially when he speaks with so much circumstantiality—a *bubulcis*—*etiamnunc*—*maxime quom arant terram*. Max Müller's reasons are of the lightest. His argument from the fact of *trio* not occurring in this sense elsewhere would put in jeopardy all ἀναξ λεγόμενα; and his appeal to 'appropriateness' is not more convincing. Different views are held by different persons about the appropriate, and 'the seven oxen' seems as appropriate a name for seven stars as, say, κύων *Canicula* is for one star. Accepting Varro's testimony means rejecting Max Müller's etymology, which indeed is improbable enough in itself. He derives *trio* from an uncertified form †*striō*† which he supposes to be an extinct Latin word for a 'star.' But not only the word but also the root, with which he connects it, STRI for STAR are devoid of authority.

We must start then with the form *trio* and the meaning 'ox' and look for some more satisfactory derivation. Max Müller,

¹*Licitari machaera*, Caecil. ap Non. 134, 16 = ἔγχει ὀρέξασθαι, Hom. Il. 4, 307, etc. Cf. *licitator* gladiator, apparitor, occisor cui multa licent (!) Gl. Isid. (Ducange).

²Science of Language, Series II, p. 804 and foll.

though preferring his †*striot*†, has suggested that it comes from the root TRI, rub, crush, another or a cognate form of TAR in *tero*, *trit*us, *τρι-β-ω*, etc., the oxen, I suppose, being regarded as *crushing the clods*. This derivation is phonetically unexceptionable; but it seems to be a somewhat artificial way of naming the ploughing oxen. At all events I think I can suggest a better.

Two words throw considerable light on *trio* by the phonetic changes which they evidence; they are *lien* and *via*. *Lien* is for (sp)li(gh)en, original form SPLAGHAN¹; it thus shows a weakening of *A* to *i* and a loss of GH. Precisely the same changes are shown in *via*, a word which has not had its rights from philologists.² *Via* is for *vigh-a* from root VAGH carry in *veho*, etc. It is formed straight from the root, like the Goth. *vig-s*, and not from a form *veh-ya* with suffix *ya*. For the *y* which only appears to disappear is by no means necessary to explain the *i*, and the Oscan *veia*, carriage, is no evidence for the Latin.

Trio then is for **triho* **trigho* from root TRAGH in *traho* *trag-ulum* = Eng. *drag*. It means 'the *drawer* of the plough, etc.,' the *ox*, especially when engaged in the act of drawing it (maxime quom arant terram). The suffix *-on* is frequently used of persons or things regarded as repeatedly performing an action.³ Compare *palpo*, *combibo*, *calcitro*, etc.; and *trio*, like all these, is closely connected with a verbal stem (*trah*).

Sudus, *sudum*, *seresco*, *serenus*, σείρανος.

The first of these words, *sudus*, is from a root SUR SVAR, shine, burn, which we see in Sansk. *sva*r heaven, root *sur* shine, rule, Gr. Σείρ-ιο-s, Lat. *ser-e-nu-s*, *Soracte*. If so, it will be for *surdus*. The loss of *r* before consonants is discussed by Corssen. In this case, as in that of *pêdo* (for *perd-o* = Gr. πέρδω) it is partly due, I think, to an endeavor to avoid confusion. It was felt that *su(r)dus*, bright, should be differentiated off from *surdus*, deaf, just as *pē(r)do*, πέρδω, from *per-do*, ἀπολλύμι.

For the meaning 'bright, hot' see Virg. Aen. 8, 528, arma inter nubem caeli regione *serena* per *sudum* rutilare vident, and Non. p. 567, *sudum* dicitur *serenum* unde et Tyberianus⁴ ait 'aureos subducit ignes *sudus ora* Lucifer.' From the sense of 'burning, heating' we easily get that of 'drying.' In Latin *seresco* shows this

¹ Curt. No. 390.

² E. g. from Corssen I 460.

³ Cf. Roby Lat. Gr. I, § 851.

⁴ Tiberianus A. D. 336, Teuffel Rom. Lit. (Eng. Tr.), § 396.

sense most clearly; but it enters into *sudus* and *serenus* too. This is what makes *pelago sereno* (Virg. Aen. 5, 870) such an odd expression. With this 'dry sea' may be contrasted Statius' thoroughly appreciative use of the word, Ach. 1, 120, *properatque dapes largoque serenat igne domum*. The sense of 'drying' is perhaps preserved in Anglo-Sax. *sedrian*, dry, sere, Old High Germ. *sôrên*, dry up.¹

The general sense of reducing volume by heat probably appears in *σιπαυον* for *σιφι-αυο-ν* which is used in the same sense as the Latin *defrutum*; unless indeed the name has reference to the bright look of the liquor. In this case the Sanskrit *surā*, wine, vinous liquor, but also *water*, may be compared.

Αὐτός.

Are we obliged to derive this word from a colorless pronominal root as Curtius does? Is it not better to take it from the root AV to breathe, which we find in *άω* (*άFω*) Skt. root *vā* blow, Latin *ventus* = Eng. *wind*, etc.? It will then mean the 'living, breathing' man *himself*.

For the superlative suffix *ta* as in *ἱπ-α-το-ς*, etc., compare the German *selb-st* by the side of *selb-er*, Eng. *self*, and the Plautine *ipsissimus*. For the transference of meaning compare the Sanskrit *ātman*, *breath*, used in the oblique cases for 'self,' and the Hebrew *nefesh*, *breath*. This representation of a difficult and complex abstract idea by an analogy from the concrete world may be illustrated by other examples. Eng. *self*, Germ. *selb-* has been compared with M. H. G. *sin lip* (*leib*), his *body*.⁴ Hebr. *ētsem*, *self* (originally of things and then of persons), meant properly 'bone.' So *gerem* in later Hebrew. In Dinda, a language of Central Africa, *yī guop* is *yourself* (lit. your body).⁵ If the original meaning was such as we have described, the consciousness of it was lost very early, as we might expect. Compare Hom. Il. 1, 3, 4, *πολλὰς δ' ἰφθίμους ψυχὰς ἄϊδι προΐαφεν ἡρώων· αὐτοὺς δὲ ἐλώρια τεύχε κύνεσσιν*, which contrasts very curiously with Arist. Pol. V 6, 16, *αὐτοὺς τε . . . καὶ τὰ σώματα*.

¹ Taken by Curtius, No. 600 *b*. from a root SUS. Prof. Skeat has suggested to me that *sudus* for *su(s)du*s is from the same root. The possibility of this is not to be denied, though the other words point to a root SVAR.

² Curt.⁵ 543 Eng. tr. II 161.

³ Curt. No. 587.

⁴ Grimm, Deutsch. Gramm. III, pp. 5, 647.

⁵ Pott, W. Von Humboldt und die Sprachwissenschaft, p. xx.

β ο λ β ό ς, *bulbus*, *egula* and the tests of a borrowed word.

Curtius¹ brings these two words together as examples of the disputed Indo-European B. He does not however further determine the root, an omission which I shall endeavor to supply; and he regards the Latin *bulbus* as 'not borrowed' from the Greek, 'on account of its derivatives' *bulb-ôsus-atio-ulus*, a statement which I shall endeavor to correct. The root would seem to be βορ, original GAR, eat, with λ for ρ; the second β is either to be explained as a 'mutilated reduplication,' compare γορ-γ-ό-s quoted below and the Latin *bau-b-or*; or else -βο is the suffix, for -φο; compare κρω-βύλος (fr. stem κρωβο κρωφο). The onion is conceived of as an *eat-able* root, compare γορ-άπιες· ῥάφανοι Hesych. from the same root GAR. βολβός then will have nothing to do with the Lettish *bumbuls* knob, with which Curtius compares it, and which can hardly be separated from *bumbuls* bubble placed by Curtius with *bullā* and βομβυλῖς. With regard to Curtius' second statement that *bulbus* is not borrowed from the Greek, it is to be observed, first, that it is just this class of words, names of vegetables or vegetable products, that are borrowed by Latin in greatest profusion, and secondly that the argument from the number of the derivatives is fallacious. Even if the derivatives from *bulbus* had been in early and general use, as they are late and technical,² and even if they had been ten times as many as they are, they would have proved nothing. We find *machinor*, *machinalis*, *machinatio*, *machinamentum*, *machinarius*, *machinosus*, *machinator*, *machinatrix*, *machinatus*, *machio*, *machilla*, *machinula* used frequently in all sorts of authors from the beginning of Latin literature; yet no one ever doubts that *machina* is a borrowed word.

There seems to be some confusion in the matter which it will be desirable to clear up.

Curtius has seen that if any word in a language stands isolated from the rest, this fact, when combined with others, is some presumption that it is borrowed. But he has forgotten that there is a real and an apparent isolation. A word may not have a single derivative, it may have been used in only a single instance that has come down to us, and yet it may be shown by demonstration to be of native birth; and on the other hand a word may have the

¹ Curt. No. 395 (δ).

² *Bulbulus* is used by Palladius, *bulbosus* by Pliny: so is *bulbaceus*: *bulbatio* Plin. 34, 148, appears to be a *f. l.* for *bullatio*.

largest family of derivatives in the language and be as demonstrably an alien. In fact it does not matter at all how many words are *derived* from it, but whether any are *connected* with it. The fertility of a borrowed word is only a question of use and time. As soon as its strangeness has worn off and it is not distinguished by the linguistic consciousness from the rest of the language, it will resemble them in having derivatives. But however fertile it may be of offspring, it cannot 'beget ancestors' so to say. Philology will observe that only its descendants have any resemblance to it, and that they and it stand alone without other relations in the language, and will thus convict it of foreign extraction. This is true isolation, and the isolation of *bulbus*. I will illustrate apparent isolation from a single but very striking case, a word which, so far as I know, has not hitherto been derived.

Egula is a word once found in Pliny¹ as the name of a particular kind of sulphur. It is derived from root AGH to choke, which we see in Latin *ango*, Greek ἀγχω,² etc. It is the only word from the root AGH with an *e* in which the original physical meaning is preserved, *eg-ula* being the 'choking' or 'stifling' sulphur. In all the other cognate words *eg-enu-s eg-eo*, etc., which show the *e*, the meaning is the same as in the Greek ἀχνη, viz. the 'res angusta domi,' the pinch of poverty.

Γοργός.

This word, which is explained by Hesychius as ἐντραφής, is to be added to the derivatives of root GAR (Curt. No. 643.) It shows a mutilated reduplication and a meaning *fat*, big, which is often derived from that of 'feeding,' e. g. *ob-esu-s* by *edo*, τροφή (Homer) by τρέφειν. And I see no reason why γοργός, fierce, grim, and γοργώ, should not be the same word in the active sense of 'devouring.'

ὀλομαι, δίοω.

If we may trust Greek sound laws, this word has lost a spirant between the *o* and the *u*. As we have no other evidence as to what it was, we must at once resort to the meaning. The following usages in Homer are significant—(1) that of *anxiously expecting*, of being painfully intent on a thing: Od. 2, 351 κείνον δίομεν η̄ τόν

¹ Pliny 35, 15, 50.

² Curtius No. 166 (a).

δύσμορον εἴ ποθεν ἔλθοι; Il. 13, 283 ἐν δέ τέ οἱ κραδίη μεγάλη στέρνοισι πατάσσει κῆρας δίομένω; Od. 10, 248 ἐν δέ οἱ ὅσσε δακρυόφιν πίμπλαντο γόον δ' ὤϊετο θυμός. Again, (2) that of *ominous presaging*, Od. 9, 213 θυμός δίστατό μοι, and even impersonally, Od. 19, 312 ἀλλά μοι ᾤδ' ἀνὰ θυμόν δίεται ὥς ἔσεται περ. (3) Lastly that of *sure conviction*, of *prophetic anticipation*, whether of something within or something without our own range of power, Il. 13, 262 οὐ γὰρ δίω πολεμίζειν, Il. 6, 341 κηχέσθαι σε δίω.

This *straining* and *watching*, this *fore-boding* and this *absolute conviction* and *confidence* of *prophecy* point us to the divining art. The word, so to speak, gives us a complete picture of the οἰωνοσκόπος in the various phases of his art. We see him waiting with straining eyes for the interpreters of heaven's will and trembling in a suspense of hope and fear. The message come, we hear the mysterious tones in which he announces destiny to the people, and we appreciate the confidence of prediction with which he meets and crushes all doubt and disbelief. So that it is not without reason that we find two glosses of Hesychius close together:

οἰονεῖς· οἰήσεις δοκήσεις.

οἰονίζει· μαντεύει.¹

Accepting this clue, we shall take δίω to be for δFίω and to be connected with the Latin *avi-s* and the Greek δ(F)ι-ωνό-s and to have meant originally to *consult the birds*: being related to *δFίς, a bird, an obsolete Greek word, as μνήω is to μῆνις. Nor shall we wonder that a word expressing confidence or conjecture about the future should have been derived from 'bird' when we recall passages like Aristoph. Av. 720 ὄρνιν τε νομίζετε πάνθ' ὅσα περ περὶ μαντείας διακρίνει κ. τ. λ.; or that a word proper to the diviner's art should have become part of the common stock of the language when we think of the Latin *auspicari*, *augurari*, *divinare*, *ominari*, *autumare*.

J. P. POSTGATE.

¹ The form in which M. Schmidt gives the first gloss (which, according to him, is corrupt in the MSS) is hardly satisfactory. If δοκήσεις is a future, as it appears to be, we should emend οἰήσει. [οἰονεῖς may be for οἰωνοεῖς and οἰονίζει for οἰωνορίζει. B. L. G.]

NOTES.

GRANDIO, GRADIO; GRANDIVUS, GRADIVUS.

In Aulularia, vv. 48 and 49, we read:

Si hercle hódie fustem cépero aut stimulum ín manum
Testúdineum istum tíbi ego grandibó gradum,

but BDEJ according to Goetz have *gradibo*. The passage is quoted by Nonius Marcellus, p. 115, 1, where the codices give *grandivo*. The connection with *grandire*¹ is of course undeniable, but the pun is much more effective if we read *grādibo gradum*, and it becomes a question which none of the editors seems to have entertained, whether the spelling of the MSS. ought not to be kept. Plautus seems to be fond of puns where there is a difference of quantity in the vowels of the words played upon. To cite but a few examples, Amph. 318 *exössatum òs*, 342 *òs exössas*; Bacch. 362 *Crücisalum*—*Crüsalo*, 687 *crüciatum Crüsalum*; Mil. 325 *lúdo lúdo*, 1425 *míttis*—*mitis*; Merc. 82 *ámens ámans*, 643 *mális*—*málum*; Rud. 1225 *licet*—*infelícet*—*licentia*.

That *n* had a weak sound and a tendency to disappear before certain consonants is a well-known fact. Some interesting remarks on this phenomenon by Buecheler may be found in a recent number of the *Rheinisches Museum*, Bd. 37, 1882, pp. 525-9. The disappearance is most frequent before *s*, but occurs also before gutturals and dentals. It may be well here to give more fully some facts relative to the tradition of the Plautus MSS. in this particular.

According to Rassow, de Plauti Substantivis, *pollictor* for *pollinctor* occurs Poen. Prol. 63 (Codd. *pollector*, Fulgentius *pollinctor*), and Asin. 910 (*pollictozem* B'DJ, *pollictoze* E). Nonius has *pollinctorem*, keeping the nasal as in the case of *grandibo* (Aul. 49), and he is followed by Goetz and Loewe in their edition of 1881. In Asin. 276 the same editors follow BDEJ in leaving out the *n* of *prægnatis*. In Aul. 163 BDEJ have *pregnantem*, and Goetz reads *prægnantem*. In Amph. 723 B has *pregnati*, which Goetz and Loewe adopt against *pregnanti* of DJ. Truc. 390 Schoell reads with A and B

¹ The adjective *grandis* is found associated with *gradus* in the following passages: Curc. 118, *grandiorem gradum*; Truc. 286, *grandi gradu*; Epid. 13, *gradibus grandibus*; Pacuvius 37, *prægrandi gradu*.

praegnatem (*pregnantem* CD), and so in 811 where B has *pregnatê*, the rest *pregnantem*. In all these cases, as Buecheler remarks, the influence of the nominative *praegnas* in bringing about the loss of *n* must be taken into account; but that *n* itself had a weak sound before *t* is proved by numerous examples from inscriptions. I think, therefore, that Schoell is justified in reading *Tarētinas* Truc. 649, with essential agreement on the part of the MSS. and I see no good reason why *gradibo* Aul. 49 should not find a place in the text. Degenerate punsters of the present day, when hard pressed, take the most shocking liberties with the pronunciation of their mother-tongue, and why may not Plautus' miser, for the sake of a really good pun, be allowed to yield to a vulgar phonetic tendency. That there was a tendency to drop *n* also before *d*, the following examples, given by Corssen, Voc. I 257, and Schuchardt, Vulgärl. I 106, prove: *facieda, faciedos*,¹ *Kaledas, Secudus, Secudo, clades-tinus, Alexader, quado, eadem* for *eandem*. To these Buecheler adds *mado* for *mando* from a Devotio. He says, however, l. c. p. 526, "Fester war der Nasal vor *d*; das Hochlatein duldet so viel ich weiss, in keinem Wort ein Schwanken, unwandelbar *grando* mit *n* gegen *χάλαζα*." But if *grando* did not become *grado*, the dropping out of *n* may, I think, be established for *Gradivus*. For this surname of Mars the dictionaries give no satisfactory etymology. Georges (1879) gives simply "*Grādivus* (*gradior*) der (in den Kampf) vorschreitende." Harpers' more cautiously "perh. from *gradior*." This explanation adopted by Preller-Jordan, Römische Mythologie, 3te Auf. I, p. 348, is also given by most of the recent editors of Vergil who express an opinion (cf. Aen. 3, 35, Forbiger, Bryce, Gebhardi, Greenough, 1882). Vaniček, however (1881) gives, p. 124, "**gravi-, *grav-divus, Grādivus* der gewaltige Gott," and so Koch in his Wörterbuch zu Vergil.²

¹ Cf. also Schmidt, Beiträge zu Lat. Sprach- und Lit. Kunde, p. 29.

² Schwegler, Römische Geschichte, I, p. 229, divides the word thus: "*Gra-divus* d. h. Gott des Wachstums, von *gra* = *wachsen* nähren (nach der Deutung von Lassen, Rhein. Mus. I, 1833, p. 376) vgl. das lat. *grāmen* das gothische Gras und Serv. Aen. XII 119, *Marti grāmen est consecratum*." Jordan properly rejects this explanation. The underlying sense of the word is, however, it seems to me, caught. Hartung, Religion der Römer, 1836, 2ter Theil, p. 162, says: "Unter den übrigen Erklärungen dieses Namens ist keine ungeschickter als die neulich von Sanskritgelehrten aufgebracht, nämlich *Grandis divus*." Who the Sanskrit scholars referred to are, I have not been able to ascertain. The connection which I hope to establish with *grandis* is, of course, of a different kind.

To the derivation of *Grādivus* from *grādiōr* the quantity offers a serious objection. As the dictionaries give no fair idea of the frequency with which the word occurs, I give the following statistics. The following poets always have *Grādivus*; after each name I add the number of occurrences,¹ Statius (20), Claudian (9), Juvenal (2), Seneca (2), Vergil (2), Lucan (1). *Grādivus* occurs six times in Ovid, five times in Valerius Flaccus, and twice in Silius Italicus. I give the verses where *Grādivus* occurs:

Ovid, Met. VI 427, Et genus a magno ducentem forte Gradivo,
Val. Flac. V 651, Rumperet irridens strepitumque minasque Gradivi:
Sil. It. XV 15, Qui consulta ducum ac flagret meliore Gradivo
XV 337, Moles illa viri, calidoque habitata Gradivo

It will thus be seen that *Grādivus* only occurs at the end of an hexameter, while there are forty-nine examples of *Grādivus*.

The verb *grandire* is used of the growth of plants. So Nonius, p. 115, explains *grandire* as *grandem facere*, and cites from Varro, "Quum aut humus semina concipere non possit, aut recepta non reddat, aut edita grandire nequeat," from Attius a similar use of *pergrandescere*, "*Fruges prohibet pergrandescere*." For *grandire* used as a neuter, the dictionaries cite Cato, R. R. 141, 2. As this passage, in connection with the Aulularia verse above discussed, first suggested to me the possibility of *gradivus* being derived from *grandire*, I will give it in full. It is a formal prayer to Mars. "Mars pater, te precor, quaesoque uti sies volens propitius mihi, domo, familiaeque nostrae quouis rei ergo agrum terram, fundumque meum suovetaurilia circumagi iussi, ut tu morbos visos invisosque, viduertatem, vastitudinemque calamitates intemperiasque prohibebis, defendas averruncesque. Utique tu *fruges, frumenta vineta virgultaque grandire* beneque evenire sinas, pastores, pecuaque salva servassis, duique bonam salutem valetudinemque mihi, domo, familiaeque nostrae." Now, as we have from the verb *averruncare* *Averruncus*, i. e. an averting deity, so from *grandire* we have *Gra(n)divus*, a deity promoting growth. Preller, Römische Mythologie, I, p. 340, has the following note: "Auch der Deus Averruncus bei Varro VII 102, Gellius V 12, 14, ist höchst wahrscheinlich Mars." It seems to me evident that in Aen. III 35 f. Mars is invoked in both capacities as *Gra(n)divus* presiding over the growth of *virgulta* (cf. v. 23), and *Averruncus*, averting threat-

¹ I have looked up the passages according to the best accessible indices. Harpers' cites but one case of *Grādivus*.

ened evil. The passage furnishes a good illustration of Macrobius' remark, III 2, 7: "Est profundam scientiam huius poetae in uno saepe reperire verbo, quod fortuito dictum vulgus putaret."

Multa movens animo Nymphas venerabar agrestis
Gradivomque patrem, Geticis qui praesidet arvis
Rite secundarent visus omenque levarent.

I agree with Henry, *Aeneidea*, Vol. II, p. 362 f., where he compares *Aen.* III 265: "di, talem avertite casum," and *Lucan*, I 635:

"di visa secudent
et fibris sit nulla fides,"

and claims that v. 37 is best interpreted: "make the phenomenon propitious and take away bad omen, *i. e.* any bad omen there may have been in the phenomenon"; *levarent* is essentially *avertent*, and the petition is addressed to Mars *Averruncus*, while Mars *Gra(n)divus* is properly associated with the *Hamadryads*, who had the trees under their special protection (cf. *Preller*, *Röm. Myth.* I, p. 336 f.). The original sense of *Gra(n)divus* was fresh to the mind of *Vergil*, but not to the commentators for whom Mars had become pre-eminently the god of war. Hence they groped about for etymologies based upon any mere accidental resemblance of form, just as *Cicero*, *de Nat. Deorum* II 26, 67, explains Mars as *qui magna vorteret*. So in his commentary on the above passage *Servius* says (*Thilo*, Vol. I, p. 342) "*gradivum* θοῦρον Ἄρρη, id est exilientem in proelia, quod in bellantibus sit necesse est: aut gravem deum . . . alii gradivum, quod gradum inferant qui pugnant; aut quod in pigre gradientur, †alii a graditudine quod huc et illuc gradiatur . . . alii gradivum, quia numquam equester; aut a gradu dictum (cf. also the additions in D and T as given by *Thilo*, and *Isidor*, *Orig.* VIII 11, 52). The *Epitome of Festus* (p. 97, *Müller*) gives this explanation: "*Gradivus* Mars appellatus est a gradiendo in bello ultro citroque; sive a vibratione hastae quod Graeci dicant κραδαίνειν vel ut alii dicunt quia *gramine* sit ortus, quod interpretantur quia corona graminea in re militari maximae est honorationis." It should be noted that according to *Lindemann*, *Gu.* 1 has *Grandivus*. So, too, in *Serv. Comm.* in *Aen.* I 292 (*Thilo*, p. 108), "Mars enim cum saevit *Gradivus* dicitur, cum tranquillus est *Quirinus*," *Codex Hamburgensis* has *Grandivus*. *Priscian* (*Keil*, II, p. 146) gives *Gradivus* as epithet of Mars, and here the *Codex Sangallensis* has *Grandivus*. Perhaps when the derivation from *gramen* was first proposed there was still a nasal

sound heard in the first syllable of *Gradius*. *Gram'ndivus* pronounced with the *e* slurred would not be unlike *Gradius*. If the view above set forth of the origin of *Gradius* is accepted, and if *gradibo* is received in Aul. 49, it would follow that the *a* of *grandis* is long by nature. Were it short, it would remain so after the extrusion of the *n*, cf. *Tarētinas*, *Kalēdas*. As to the etymology of *grandis* itself, whether it has any connection with Ags. *greāt*, Ahd. *grōz*, Urdeutsch **grauts*, as Johannes Schmidt with others assert, I do not feel competent to pass any judgment. The connection assumed by Vaniček of *grandis* with *gravis*, Skr. *gurū*, does not seem to me to be clearly established.

MINTON WARREN.

THE BUCOLIC CAESURA.

In the *Hermathena*, No. VIII, Mr. Tyrrell follows Dr. Maguire in throwing doubt upon the commonly accepted theory of the bucolic caesura, summing up his conclusion as follows: "The only expression of the rule, as far as I know, which really colligates the phenomena is that of Dr. Maguire, Fellow of Trinity College, Dublin, and it runs thus: 'When the fourth foot ends with a word, the fourth foot must be a dactyl, *if there is a stop after the fourth foot.*'"

Mr. Tyrrell mentions Marius Victorinus and Terentianus Maurus as the authorities for the existing rule, but he does not quote them, nor does he allude to a passage in Servius, which to my mind is very important as setting the matter in its true light. Before considering what is the real import of the ancient grammarians' testimony, it will be convenient to quote them in full.

Servius on Eclogue i init. *Carmen bucolicum, quod debet quarto pede terminare partem orationis. Qui pes si sit dactylus, meliorem efficit versum; ut 'nos patriae fines et dulcia.'* Primus etiam pes secundum Donatum dactylus esse debet, et terminare partem orationis; ut 'Tityre.' Quam legem Theocritus vehementer observat, Vergilius non adeo. The Pseudo-Probos gives the rule in a much shorter form.

Terentianus Maurus, p. 389 (Keil):

Pastorale volet cum quis componere carmen,
tetrametrum absolvat, cui portio demitur ima,
quae solido a verbo poterit conectere versum.
bucolicon siquidem talem voluere vocari.

plurimus hoc pollet Siculae telluris alumnus.
 'dulce tibi pinus summurmurat, en tibi, pastor,
 proxima fonticulis, et tu quoque dulcia pangis.'
 iugiter hanc legem toto prope carmine servat.
 noster eo rarus pastor Maro, sed tamen inquit
 'dic mihi, Damoeta, cuium pecus, an Meliboei?
 non, verum Aegonis: nuper mihi tradidit Aegon.'

Marius Victorinus, p. 65 (Keil): Eam (caesuram) quae quarto pede partem orationis terminat, quam bucolicen Graeci dicunt.

It is to be observed that Terentianus Maurus gives the facts quite correctly. He says of the first idyll of Theocritus, the two first lines of which he has translated, *iugiter hanc legem toto prope carmine servat*, "almost throughout the poem." Now this is neither more nor less than the truth; according to Mr. Tyrrell's own statement, Theocritus violates the rule in only twenty-seven verses out of one hundred and fifty-two. Nor again does Servius imply that Theocritus in his bucolic idylls never violates it; the fact is that Theocritus gives the impression of employing it oftener than he really does, by using it in a great number of verses *continuously*.

There seems no reason then to doubt that the title of *bucolic caesura* was rightly given, by an *oxymoron*, to the cadence of which Lucretius and Catullus are so fond, *tibi rident aequora ponti*. Theocritus is undoubtedly partial to it, much more partial than Homer. But I suspect that the reason why the term *bucolic caesura* came thus to be applied was this: that the Greek grammarians had begun by characterizing a particular kind of *hexameter* as bucolic. And the particular kind of hexameter I suppose to have been such a one as ἀρχετὲ βουκολικᾶς, Μοῖσαι φίλαι, ἀρχετ' αἰοιδᾶς, or *Ducite ab urbe domum, mea carmina, ducite Daphnin*. This, I think, may be inferred from the expression *carmen bucolicum* in the note of Servius, and the theory which he quotes from Donatus, that the first foot ought also to be a dactyl and end a word. When the name *bucolic* had been attached to a hexameter of which the first word formed a dactyl and in which the fourth foot also ended a word, the phrase *bucolic caesura* may easily have been attached to the particular cadence in the fourth foot.

HENRY NETTLESHIP.

ON A TRANSPOSITION IN SENECA.

The method which I recently applied to the case of a transposed passage in the New Testament has an interesting illustration in Seneca, ad Marciam. Madvig (*Adversaria Critica*, p. 355) pointed out that two passages had been transposed in c. 17, and that the words "Dicit omnibus nobis natura . . . qui tibi nihil certi spoponderunt" (c. 17, 6, 7) should in reality stand after the words "sed humanum est" (c. 17, 1). Almost all such cases of transposition arise from the misplacement of a sheet or sheets in the MS or papyrus roll of which they form a part. And it follows at once that in all such errors we must have an integral number of pages for each of the two passages concerned in the transposition, and also an integral number of pages for the portion of the book antecedent to the disputed ground. Let us apply this test to the passages of Seneca just referred to.

Taking the Teubner edition as our standard, we have to carry a passage 12.6 Teubner lines in length to a place 38 lines earlier. Obviously 38 is 12.6×3 very nearly. Assuming 12.6 lines to represent a single page of the manuscript, the space through which it has to be moved is three pages. The previous part of the book is 568 lines = 45.0×12.6 very nearly.

The error, therefore, arose at the 46th page of the MS, and consisted in placing the 47th page after the 50th. Madvig's criticism is therefore completely confirmed.

In the next place, we may enquire into the stichometric size of the page in question. The average Teubner line being found to be 46.9 letters, or somewhat less, and the average hexameter being about 36 letters, a page of 12.6 Teubner lines is about 16 hexameters.

Finally, the remainder of the book being reckoned, we have for the MS in which the error was made a roll of very nearly 83 complete pages.

J. RENDEL HARRIS.

"IS BEING BUILT."

The earliest examples of the use of our passive progressive form, *is being built*, etc., that have thus far been noted, date from 1769-79; see Dr. F. Hall's *Adjectives in Able*, also *English Rational and Irrational*, *Nineteenth Century*, Sept. 1880, by the

same author. To the examples pointed out by Dr. Hall I desire to add another, dating from about the same period, which illustrates very clearly the development of this construction. See Memoirs of George Selwyn, Vol. IV, p. 137. Miss Mary Townshend to George Selwyn, May 17th, 1779: "Lord R. B. is not so well as he has been. He has lately had an attack of St. Anthony's fire in his leg, and he hurt himself whilst *being reviewed* at the head of his troop."

H. E. SHEPHERD.

REVIEWS AND BOOK NOTICES.

Französische Studien. Herausgegeben von G. KÖRTING und E. KOSCHWITZ.
III Band, 3 Heft. Heilbronn: Henninger.

Die Wortstellung in der altfranzösischen Dichtung "Aucassin et Nicolette,"
von Julius Schlickum.

Prof. Suchier's edition of the Aucassin et Nicolette text, Paderborn, 1881, is taken for this special study, and in the arrangement of the material for it the reader will find much that reminds him of Morf's paper, Die Wortstellung im altfranzösischen Rolandsliede, Roman. Studien, Band III, S. 199-294. A short review of the Suchier edition of A. and N. was given in this Journal, Vol. II, pp. 234-36, in which mention was made of the great importance of this work, both for the study of the morphology and the syntax of Old French, and especially for the latter, as its peculiar form—the *Chantefable*, a mixture of prose and poetry—enables us to examine these two species of sentence as given by one and the same author. This advantage is manifest from the outset where we find differences between the poetic and prose construction, and where the former frequently prefers a certain set form varying from the normal one simply to produce by it some psychological or rhetorical effect. Metre and assonance come in here also as important elements to cause the poet to change the position of his words. This is seen particularly in Old French, where, in the relation of object to verb, the strictest rules of syntax are overthrown, while in the modern language this relation is subject to fixed and rigid law for both poetry and prose.

If we take the simplest phrase-elements—subject, verb, object—whose relations to one another are treated by the author in the various kinds of sentence—declarative, interrogative, imperative, and exclamatory—we find deviations of usage from certain other models of the Old French literature that are at once striking and instructive, and which, when compared with the canons of modern syntax, show strong tendencies to a development of the present inflexible system. For instance, though there is still a certain freedom with reference to the order of subject and object, yet the predominant tendency is found to be in the direction of the rigid law of the modern language where the subject is required to precede the verb. The writer finds 312 sentences of this kind to only 70 with other positions, thus showing how this expression of the logical sequence of ideas had gained the upper hand in the early period of the language. Inversion is not arbitrary, as Diez and Mätzner have maintained, but subject to fixed laws that scarcely know exception. These results compared with compositions of a century earlier, *e. g.* the *Chanson de Roland* at the end of the XI century, present a striking contrast, in that the latter gives us numerous exceptions to its rule of inversion. Here, with *verba dicendi*, inversion of the subject was regular, and this is also found to be the case for the most part in the poetic

language of Aucassin et Nicolette, but yet was not absolutely necessary, as is shown by such examples as 2, 18 *ses pere et se mere li disoient*.

It is worthy of notice that the modern French construction—predicate adjective at the beginning of the phrase followed by inversion of the subject, e. g. *grand est l'homme qui se vainc lui-meme*—is not found at all in the prose part of A. and N. In the example from 11, 27 *Garis fu li pelerins*, the inversion is conditioned by the assonance, and the writer should have taken advantage of it to state whether this species of poetic construction for the XIII century French was transferred later to prose composition, and, if so, under what conditions the change was made. He says nothing whatever about it. In intercalated phrases we have inversion without a single exception just as in the modern language, but here again it is only the prose that furnishes us with examples.

The author very wisely rejects (p. 7) the favorite 'ellipsis theory' for optative phrases, in accordance with which they are made to depend on a verb of wishing understood. He finds two cases of this construction with *que* (4, 4 *que la tere soit maleoite*! 24, 61 *que benois soies tu*!) which agrees perfectly with the modern form, but which seems to have been wholly unknown to the Chanson de Roland, according to Morf's study. In adverbial sentences, inversion seems to have been purposely avoided, since out of 300 examples cited not a single case of it comes up. In this respect the A. and N. forms a striking contrast with the earliest compositions of Old French (Passion du Christ, etc.) where the Latin exercised a strong influence on the form of literary expression.

So far as the object is concerned, both Old and Modern French agree in general in putting it after the verb, and A. and N. offers us only eighteen cases of variation from this rule. Here again we note a great advance towards the present strict law of position, while in the Chanson de Roland only 58 per cent. of the sentences make the object follow the verb. At the end of the XI century, then, object + verb was the regular construction; in the beginning of the XIII century, verb + object was the approved syntactical arrangement. For the construction of the pronoun A. and N. knows only strict rule of pre-position for the atonics and post-position for the tonics, while there is no trace to be found of the modern *me le* (*il me le donna*), *te le* for *le me*, etc., the natural order of direct + indirect object which was common to the whole of the Old French period.

In the treatment of its adjectives A. and N. holds an interesting position in that the construction, adjective + noun, is by far the predominant one, the ratio being (adjective + noun) 12 : 1 (noun + adjective). This exceptional tendency of our poem is attributed to German influence, though the writer ventures to suggest that we cannot be sure of it till the position of the attributive adjective in Low Latin is better determined.

In summing up the value of this contribution to Old French syntax it must be said that it contains all the constructions of a very limited work (42 octavo pages in all), that the subject-matter is presented in a clear, intelligible, systematic way, though not original with the author. One feels constantly, however, the lack of comparison throughout the whole of it. The results of the investigation show that this composition holds a sort of middle place in syntax between the XI century documents and the modern language, and this fact should have been sharply stated and illustrated by abundant examples drawn from both sources. Corresponding phrase-building in the cognate languages

should also have been drawn upon largely to show the general character of many of the sentence-forms; but this is not done, nor is there scarcely even a reference to the Latin construction, which, in certain cases, would have illustrated the force of a given order of words much more clearly than any possible explanation according to general principles. On the whole, this little pamphlet may be used with advantage by those studying the text for the first time, and it forms an important factor in the line of special syntactical studies which must be the basis for any future general syntax of Old French.

4 Heft.

In Vol. III, p. 434 sqq., the editor of this Journal, in his "Studies in Pindaric Syntax," designates the four principal forms of the Conditional Sentence which the Greek holds sharply apart as 'logical,' 'anticipatory,' 'ideal,' and 'unreal.' The second of these, the 'anticipatory'—ἐάν τι ἔχωμεν, δώσωμεν—was turned over by the Latin from the region of objective possibility into that of reality ('logical') and both represented by the indicative, thus reducing the number of its leading conditional forms to three. For the two remaining Greek species, the 'ideal' and the 'unreal,' the Latin kept its own peculiar mode of treatment with a clear distinction of mood and tense in each. In the 'ideal' type where the Greek has εἰ with the optative in the protasis, and optative with ἄν in the apodosis, the Latin uses the subjunctive (pres. or perf.) in both clauses (*Haec si tecum patria loquatur nonne impetrare debeat; Si me suspendam, meam operam luserim*), while in the 'unreal' condition—the hypothesis contrary to fact—it employs a past tense of the subjunctive to express the double point of view of present and past time. For the domain of the present the imperf. stands in both clauses (*sapientia non expeteretur, si nihil efficeret* = εἰ τι εἶχον, ἐδίδοον ἄν); for that of the past, the pluperfect (*si voluisset, dimicasset* = εἰ τι ἔσχον, ἔδωκα ἄν).

In the representation of these phases of the 'unreal' condition, Modern French syntax presents a striking contrast with the Latin by the use of the indicative imperf. in the protasis and the imperfect future (conditional) in the apodosis (*je le ferais encore, si j'avais à le faire*—Corneille) for present time, and the pluperfect indicative and pluperfect future (*si . . . les législateurs avaient établi la cession des biens, on ne serait pas tombé dans tant de séditions*) for past time. This cutting loose from the traditions of the mother language and nearer approach to the Greek type of construction is most striking, and it is the chief merit of the paper before us—*Historische Entwicklung der syntaktischen Verhältnisse der Bedingungssätze im Altfranzösischen*, von Joseph Klapperich—to have followed up the traces of the Latin sentence construction in French, and to have shown, as might *à priori* have been expected, that this passage from the domain of subjective to that of objective representation of thought was not a process that took place suddenly.

Just as we saw a reduction in the number of conditional forms in passing from the Greek to the Latin, so the author of this treatise discovers that from the very earliest period of the French the 'anticipatory' had been merged into the 'logical' condition, which always takes the indicative, while the type of subjective possibility—the 'ideal' condition—has been pushed forward and, for the most part, identified with the 'unreal' condition. This leaves us, then,

only two leading species of conditional phrase for the modern language, viz. the 'logical' and the 'unreal,' instead of the three of the mother idiom. Of these two main sets of the hypothetical sentence, it is the first which is characterized by the almost exclusive use of the indicative present and future in the subordinate and principal members, respectively, of the phrase. The substitution of the future for the present in the protasis is very unusual, though we do find sporadic traces of it as far down as the XVI century, and it is doubtless to the Low Latin that we must look for the model, according to which, with time, the rigid Modern French rule was built up of excluding the future from the conditional member of a hypothetical clause. Draeger, in his *Hist. Syntax*, II, p. 286-8, notes the use of the present for the future in this case as a common phenomenon in the Folks Latin, and the usage has simply been confirmed by a further development of the modern syntax. The French here differs very materially from other members of the Romance group of languages which admit the future as the legitimate type of the protasis. *E. g.* Ital. Dante, *Inf.* I 121, *alle qua' poi se tu vorrai salire, anima fia a ciò di me più degna.* Port. Camões *Os Lusíadas*, IV 18, *Rei tendes tal, que se o valor tiverdes Igual ao Rei, que agora alevantastes, Desbaratareis tudo o que quizer des.* The same construction prevails in Spanish, while the Provençal, on the other hand, agrees with the French.

Very few examples are found by the writer where, according to the Latin arrangement (*in insidiis hic ero, si quid deficias*), the subjunctive is used in the protasis of an 'ideal' condition, with the future in the apodosis.

For the 'unreal' condition the Old French used the imperfect subjunctive in both clauses, corresponding exactly to the Latin usage. In the earliest period of the language, however, this imperfect frequently represents the Latin pluperfect in meaning, from which it had taken its form, and as this construction prevails throughout the whole of the Old French period, it cannot be reckoned as a rare phenomenon as Mätzner does in his *Syntax*, I, p. 97. In fact its use is so common that it has usurped the legitimate field of the pluperfect subjunctive in both clauses of a conditional sentence, so that this latter does not appear at all in this capacity in the oldest texts. The oldest documents likewise know nothing of the Modern French order, pluperfect in the protasis + imperfect future (conditional) in the apodosis, of which the earliest examples cited belong to the Wace's *Roman de Rou* of the second half of the XII century. For a long time, however, the pluperfect subjunctive held exclusive sway in the protasis, when the condition bore upon past time, and it was not till a comparatively recent period that it split up into the Modern French type of indicative and subjunctive pluperfect in the subordinate clause. The subjunctive construction in such cases is now dying out, according to K.'s investigation, who explains its continuance in use so long from the fact that the compound tense was adopted here at an epoch when the conditional phrase that bore upon the present or future had already begun to go over to the Modern French construction. This I hold to be, however, only a specious cause for its long life. The chief reason for it lies in the conservative tendencies of the language itself, a desire to hold fast to the old models of expression which we see strongly manifested in the exclusive use of the subjunctive element up to within a recent period of the language.

For the domain of the present and future, where the Old French characteristic construction is the imperfect subjunctive in both clauses, the modern form of

imperfect indicative in the protasis and imperfect future (conditional) in the apodosis appears at an early date. The first examples cited belong to the *Comput* of Philippe de Thaon—beginning of the XII century—and yet there are cases of a manifest tendency to it as far back as the *Chanson de Roland* (XI century), where in v. 1804, *Se veissum Rollant, ainz qu'il fust morz, Ensembl' od lui i durriums granz colps*, the only variation from the modern type consists in the use of the imperfect subjunctive in place of the imperfect indicative in the protasis. This and other examples of similar construction prove beyond doubt that the emancipation from the Latin mould took place originally in the apodosis. This construction cited from the *Chanson de Roland* has died out in French, but it still lives in the other Romance languages, e. g. Ital. *s'egli venisse, lo troverebbe*; Spanish, *si yo le viesse, se lo daría*. This is, then, the bridge by which we have passed from the Old French subjunctive in both clauses to the modern imperfect indicative + the future. From the beginning of the XII century this construction is constantly gaining ground, until towards the end of the same when it becomes the predominant type of hypothetical phrase for present and future time.

The modern construction with imperfect indicative in both clauses when the condition bears upon past time, is unknown in the earlier documents. Here, too, the principal clause became the transition link by which the present typical form was developed out of the old one.

The original Old French subjunctive-protasis lived on up into the XVI century, when it finally became folks style; and just as the subjunctive kept its place in the protasis longer than in the apodosis in the pure condition, so in hypothetical constructions with the comparative particles *comme* and *que*, the principal clause was the first to yield to the new conception of time relation and pass from the subjunctive to the indicative type.

In conditional relative phrases the writer finds the same construction prevailing as in the conditional with *si*, except that they do not entirely exclude the future from the subordinate clause.

Several other less important kinds of condition are examined in this interesting paper, the principal one of which is the hypothetical subordinate phrase used as a formula of conjuration. Diez' ellipsis theory is here stuck to by the writer in opposition to Bischoff, who, in his *Conjunctiv bei Crestien de Troies*, regards it as a mixture of two optative constructions. The *Roman de Rou* contains the first use of *se* in these formulas, e. g. II 670 *Gentils ber, dist li reis, Se Deus me beneie, Tuz sui preu*.

In the sequence of two conditional subordinate clauses the omission of *se* in the second member is the common rule in Old French, and it was not till in the XV century that the modern law of substitution of *que* for *se* in this case became general; however, we do find occasional examples of it as far back as the middle of the XII century, e. g. Rou III 8943, *Et se Deus le velt consentir E que a lui vienge a plaisir, Bien le feron d'ore en avant*.

On the whole, I think this treatise, of sixty-five pages, altogether the most comprehensive and the best that has yet appeared for this department of syntax. The writer has evident control of his material for the Old French and gives us frequent references to the Latin, but as is usual with all such works very little account is taken of parallel or identical phenomena in the cognate languages. This lack is especially felt for certain phases of construction which at one

time existed in the French in common with the other Romance idioms, and which have disappeared from the former for some local or other reason, but still live as legitimate types in the latter. Notwithstanding these minor drawbacks, however, we have in this work the greatest step ever taken as yet towards building up a general Old French syntax.

A. M. E.

Beowulf: an Anglo-Saxon Poem, and The Fight at Finnsburg. Translated by JAMES M. GARNETT. With facsimile of the Unique Manuscript in the British Museum, Cotton. Vitellius A XV. Boston: Ginn, Heath & Co. 1882.

Wülcker's remark in *Anglia* (Anzeiger zu Band IV): Eine vollständige Übertragung des Beowulf ist meines Wissens in Amerika nicht erschienen, is now no longer true; for here is not only a complete translation, but a good one, the best that has yet appeared indeed for perplexed students who hold text in one hand and translation in the other for purposes of comparison. The translation is based on Grein's separate text (1867), with notes that add renderings of the variations in the text of Heyne's fourth ed. (1879). The translator has used Grein's and Heyne's Glossaries, and retains Grein's divisions of the poem, adding headings that recall the contents of each division. He has studiously abstained from consulting the existing English translations. A Preface, explanatory of the growth of the translation as originally a piece of class-work intended to aid his post-graduate students; an Introduction setting forth (1) the contents of the poem, (2) its date, (3) the scene, (4) the names of the tribes represented in the poem, (5) the life of the time, (6) the composition and (7) metre, (8) a bibliography; a glossary of proper names, and a list of Old English words used in the translation, are added by the translator.

The Bibliography is an exceedingly valuable feature and far exceeds Wülcker's and Botkine's in completeness. That it is not exhaustive may be seen from the following list of miscellaneous omissions, added here for the benefit of other collectors of Beowulf literature: Outzen's Ueber das A. S. Beowulf (Kieler Blätter, 1816); Sweet, Englische Studien, II 313; Ettmüller's Geschichte der deutschen Literatur, mit eingeschlossen der Angelsächsischen; Ebeling's A. S. Lesebuch (Leipzig, 1847); Thorpe's Rask (1879); Arend's Proeve eener Geschiedenis der dichtkunst en fraaije letteren onder der Angelsaksen (Amsterdam, 1842); Skeat's Guest's English Rhythms; Der Genetiv im Beowulf, von Dr. E. Nader (1882); Die Synonyma im Beowulfliede, mit Rücksicht auf Composition und Poetik des Gedichtes, von K. Schemann (1882?); W. Taylor's Historic Survey of German Poetry, interspersed with various Translations, 3 vols. (London, 1830); Sievers's Kleine Bemerkungen und Fragen zum Beowulf, in Paul und Braune's Beiträge, IX, pp. 135-44; Longfellow's Poets and Poetry of Europe (new ed. 1871);¹ Wright's Biographia Britannica Literaria, and Celt, Roman, and Saxon (for references to armor, etc.); Kemble's Saxons in England (for discussion of political institutions, the germs

¹ The reviewer is indebted to Mr. Bright, Fellow of the Johns Hopkins University, for the three last notes. Several of the essays indicated have appeared since Dr. Garnett's translation.

of which K. discerns in *Beowulf*); *Edinburgh Review* for Oct. 1845; W. Wagner's *Deutsche Heldensagen*, Leipzig, 1881. General references and discussions that elucidate particular points may be found in Weinhold's *Alt-nordisches Leben*, Wackerbarth's *Music and the Anglo-Saxons*, Bouterwek's *Caedmon*, Lappenberg's *History of the Anglo-Saxons*. It may be well too to mention Gräter's *Suhm's History of Denmark*, Baldwin's recent work on *English Literature*, Hammerich's *De episk-kristelige old-kvad hos de Gotiske folk* (Copenhagen, 1873), W. Grimm's *Die deutsche Heldensage*. The reference *sub* Lumsden, "Academy, Vol. XVIII," should be *Academy*, Vol. XIX; and read, in the next line, "by Wülcker in *Anglia*, *Anzeiger*, IV, 69."¹ It has not been possible for the reviewer to make exact references in every case, the volumes in question not being always at hand. Doubtless Dr. Garnett has many of them already on hand for a future edition.

The peculiar feature of this translation is its line-for-line literalness, with alliteration as an occasional grace. Undoubtedly such a theory must result in much distressing involution of phrase, which the translator has foreseen and done his best to overcome. As a translation for popular reading it fails precisely in this point. To the Anglo-Saxon scholar the involutions are quite intelligible, for he has grappled with them from the beginning of his studies in Anglo-Saxon poetry; but to the general reader they are obscure and tormenting enough. In so far then as the translation is an exact and faithful reproduction of the original addressed to students, it is a success; but in so far as it is intended to popularize a most difficult poem, it cannot be called such. It cannot be said, moreover, that the new version is perfectly free from those *Unwörter* with which Ettmüller's alliterative version was reproached; or from monotony, as the perpetual recurrence of such words as "victorious," "jewel," "treasure" (translating A. S. words in which a subtler insight would have perceived picturesque shades of meaning); or from inexactness here and there in the translation of particles (ll. 369, 182, *hæru* omitted; l. 735, *pá gen*, rather = "any longer" than "not yet"; l. 862, "now" for "nevertheless"; l. 1353, "unless" for "except"), or from neglect of certain points, as of the duals in several important passages (ll. 1707, 1783).

In other passages the translation is a distinct advance on Heyne's text, and throws light on obscure points, as ll. 1143-4, 1213-14, 2051, 2860-1. Ll. 2522-3 and 3117 take a liberty with the text (no notes explaining the variations). Umbrage might be taken at what appear to be verbal slips or inaccuracies, as l. 1861, "swan's bath" for "gannet's bath"; l. 236, "weighty words" for "words"; l. 293, "horse-thanes" for "kindred-thanes," "comrades"; l. 307, "went" for "went down"; l. 435, "renounce" for "scorn"; l. 498, "band" for "joy" (see Toller-Bosworth, 218, for numerous references, though this one is omitted); l. 1043, "of" for "over"; l. 1175, "would" for "wouldst"; l. 1191, "by" for "'twixt"; l. 1285: query: can *heoru bunden* mean "twisted sword"?; l. 1537, "cared she not for the contest" for "cared he," "shrank he," etc.?; l. 1616, "twisted" for "drawn"?; l. 1736, "sorrow" for "remorse"?; l. 1793, "pleased to rest" for "longed sorely to rest"?; l. 1943, "any dear man" for "leman"?; l. 1980, "with mighty words" for "with formal or courteous words"?; l. 2029, why "courtier"? In our opinion *oft* here belongs to *gesette*; *nô* is wrong, and the trans-

¹ Mr. Bright.

lation is "seldom after a leader's fall rests the death-spear [even] a little while"; l. 2145, "by" should be omitted; l. 2175, "saddle-bright" for "bright-saddled"?; l. 2299, "at times" is omitted; l. 2449, "with" for "through," "on account of"; l. 2576, "fearful" for "grisly-hued"; l. 2577, *in ge lðfe* seems to mean "with the edge of the sword," not "with the *mighty* relic"; l. 2640, "thought of honors for us" for "exhorted us to deeds of glory"; l. 2750, "on account of" for "after seeing"; l. 2820, the ambiguous "doom of the saints" for "realm of the saints." Quotation marks have been omitted l. 687. Many of these corrections would naturally spoil the rhythm which, though rugged, is based throughout upon the consistent introduction of two accented words to each hemistich; but the translation would gain in accuracy.

In judging a work of this nature, however, one may easily be led to be over-censorious. The difficulty and corrupt state of the text must be kept carefully in view; the inadequacy of the lexical helps to a thorough study of Anglo-Saxon is another point to be remembered; and the still very imperfectly understood canons of A. S. poetic syntax may well admit a variety of translations in passages that seem at first perfectly clear. Dr. Garnett is modest in everything that he advances. Though his translation cannot be called poetry as, in some senses, the translations of Simrock, Heyne, Wackerbarth, Conybeare (partial) and Lumsden may be, it is rhythmical and vigorous, now and then felicitous in single epithets, now and then dramatic when it grapples with the memorable episodes. It is worthy of extended notice; it deserves, as it has received, the approbation of Prof. Child and Henry Sweet; and it need not fear the criticisms of church-mice or of academicians in a corner.

J. A. H.

Babrius. Edited with Introductory Dissertations, Critical Notes, Commentary and Lexicon. By W. GUNION RUTHERFORD, A. M., of Balliol College, Oxford. London: Macmillan & Co. 1883.

One of Mr. Rutherford's English reviewers, in a highly commendatory notice of the New Phrynichus, says that Mr. Rutherford 'has quite succeeded in catching the amusing though somewhat aggressive dogmatism of style of Cobet and the best critics.' It is much to be feared that praise like this has encouraged Mr. Rutherford in his *παραφύλα*, for his edition of Babrius is studded with depreciatory remarks which will certainly earn for the editor the close, if not malevolent attention of sundry Greek scholars. It is not pleasant to be told that one 'fails rather from want of knowledge and judgment than of native acuteness' (p. 4 *a*), that 'the abundance of [one's] work has given [one's] name a predominance to which, if linguistic tact and careful scholarship are of value, it has little right' (p. 72 *b*), that one 'has flaunted his ignorance in our face' (p. 92 *b*), that one shows 'his usual absence of appreciation of the history of the Greek language' (p. 109 *b*), that a certain form is 'a paltry shift, although it has been accepted by Liddell and Scott' (p. 121 *a*), that one's 'incapacity in making conjectures is only equalled by one's boldness' (p. 125 *b*), while 'my own proposal is hardly a conjecture; it is a correction.' This is only a rapid gleaming of passages that have caught my eye in turning over the pages, and there are more of the same order. This is not so bad as German

criticism at its worst, and there is perhaps too much deference both in England and in this country to official ignorance and incapacity, but Mr. Rutherford goes perhaps a trifle too far. But if he has shown somewhat more acerbity in this book than in the *New Phrynichus*, he has, on the other hand, tempered the fervor of his style, and the average philological mind will not be so much disturbed by his rhetoric as not to profit by the valuable work he has done for and about Babrius.

A sharp, clear knowledge of Attic Greek ought to be insisted on, not for the purpose of sneering at subsequent developments as so many morbid growths, but for the sake of getting into full sympathy with the finest type of the Greek mind; but in whatever spirit that sharp, clear knowledge of Attic Greek is promoted, we ought to rejoice even if we cannot agree with the temper of Cobet or his admirer, Mr. Rutherford. Later Greek when read with college students, if read at all, ought to be read with an incessant reference to the model language, and it is only from a sense of the usefulness of such a process that I gained my consent to edit the colorless and lumbering apologies of Justin Martyr. Indifference as to the period and the sphere of Greek vocabulary, Greek formations, Greek syntax, is one of the great evils with which an honest teacher of Greek has to contend, and this indifference is systematically encouraged by the scrappy readings of early youth; and I can almost forgive one of my own pupils who has steadily declined to teach anything but model Attic Greek, leaving the boys to pick up Homer as they would Chaucer in after years. Now Babrius is excellent practice for the exercise to which I have adverted, and I have often used his fables for the purpose of testing knowledge as to the history of Greek words, forms, syntactical rules. As a special student of the Greek verb, as the editor of *Phrynichus*, Mr. Rutherford has been able to do good in pointing out late forms and words of recent origin, but this has not been done systematically either in commentary or in lexicon, and the educational value of Babrius from this point of view has not been fully realized. On p. lix of the introduction he gives a short list, 'which,' he says, 'every reader of Babrius will be able to increase for himself.' His reason for this limitation was not only to satisfy his own sense of proportion and to avoid 'insulting the understanding of [his] readers,' but because questions of percentage are involved; and while 'it would be possible to represent numerically the differences in the frequency of such violations of usage between a typical Attic writer and such an author as Babrius,' it could only be done 'at a cost of labor quite incommensurate with the advantage.' Unfortunately one must run the risk of insulting the intelligence of some readers if one wishes to be useful to a large class, and the wearisome task of ascertaining proportions must be undergone, if such work is to be considered final. Of course it requires judgment to know when statistics will pay, and as Mr. Rutherford has decided that they will not pay, nothing more is to be said. If I were editing a post-classic Greek author I should not trouble myself to count all his articular infinitives, but in a commentary on Philostratos, for instance, I should not fail to notice the familiarity with which he employs the most daring constructions of this class, constructions which go back to Thukydides and Demosthenes, and I might be at the pains to count the rare combinations. Mr. Rutherford's disdainful attitude makes it hard to criticise the omissions of his commentary, and I may insult the intelligence of my readers by missing a note on 50, 6: $\delta \delta' \text{ οὐ } \pi\rho\omicron\beta\acute{\omega}\sigma\epsilon\iota\nu \acute{\omega}\mu\epsilon\nu$ which

is a very rare example of *οὐ* with *δυννυμι*, and shows very strikingly the confusion of the 'mixo-barbaric' mind, as Mr. Rutherford would call it. *Οικοδόσποινα* (10, 5) is disposed of in the dictionaries, but as the meaning is so transparent that few would consult a lexicon for it, it might have been worth while to refer to Rutherford's 'New Phrynichus,' p. 470, where the word is considered. But after all, this is only saying that Mr. Rutherford has a different ideal.

Many of Mr. Rutherford's general grammatical views are sound and, though not altogether novel, need the emphasis which he has given them by his peculiar presentation. But on several points I should be obliged to differ with him, because he seems to imagine that later Greek syntax is a thing apart, an imported disease, and not a breaking down of the tissues.

Among the statements made by Mr. Rutherford with portentous emphasis that are not consistent with a calm survey of the facts is one which I have elsewhere disposed of. Mr. Rutherford says, p. lvi, 'except in the sense of *κελεύειν*, the verb *εἰπεῖν* refuses (in Attic) any construction but that with *ὅτι* or *ὥς*.' I have no objection to this as a rule for Greek prose composition, a rule, by the way, which Mr. Sidgwick flagrantly violates; I recognize the fact that exceptions are comparatively rare, and, indeed, I have tried to explain the phenomenon in my commentary on Justin Martyr, *Apol.* 1, 12, 32, which I will take the liberty of quoting: "*εἰπεῖν* in the sense of 'say' not 'order' commonly takes *ὅτι* or *ὥς* in classic Greek; but the exceptions are far more numerous than one should suppose from the way in which the rule is stated, as *Thuc.* 7, 35, 2; *Hdt.* 1, 39; 2, 30; *Andoc.* 1, 57; *Xen. Hell.* 1, 6, 7; 2, 2, 15; *Cyr.* 5, 5, 24; *Plat. Gorg.* 473 A; *Legg.* 2, 654 A [to which may be added 673 B]; *Clitoph.* 407 A; 460 A; *Aeschin.* 3, 37; *Lycurg. contra Leocr.* 50, to say nothing of the poets such as *Pind. Ol.* 7, 62; *Soph. Antig.* 755, etc. For later Greek, examples are not necessary. The rule, however, is not without its reason. *Εἰπεῖν* originally gives the exact utterance (*ἔπος*). So in Homer (*τάδ' εἶπεν*). When the *ὅτι* form of *oratio obliqua* became common, it was natural that this form, which is nearest to *oratio recta*, should be retained." Some of these examples have found their way into the new edition of Liddell and Scott's *Lexicon*, and others might be added, such as *Lys.* 10, 6; 9, 12 (*bis*), and *Isaios* 2, 29. But I know what Mr. Rutherford will say. He will say as he has said time after time, that Xenophon does not count, that Thukydides has to use an 'immature Attic' (p. 8 a), that *Lysias* 10 is questioned by *Harpokration*, though *Blass* does not know why. Nay, if *Lysias* 10 be proved genuine, Mr. Rutherford will be able to point triumphantly to a remark, p. 36 b, in which place he says "Mr. Gow, Fellow of Trinity College, has drawn my attention to the fact that French critics saw in Victor Hugo's works, written during his sojourn in Jersey, an absence of 'la malice et la délicatesse Parisienne,' and a similar *nescio quid* I have always felt the want of in *Lysias*' Attic." Taste so refined must be a positive curse, and the attainment of it can hardly be considered desirable. Most persons will think that what was good enough for *Sophokles*, what was good enough for *Plato*, was good enough for *Babrius*, and will not count it a special feather in the cap of the late fabulist that he slipped only once in this regard (*Fab.* 97, 4). But I do not wish to go into details which would involve long discussions of the fundamentals of Greek syntax. There are other points in which the edition deserves attention and commands respect. So

we have an elaborate and interesting introduction in which the person of Babrius, the history of Greek fable, the language of Babrius and the history of the text are discussed. Mr. Rutherford's style is perverse and does not deserve the commendation of conciseness which a friendly critic has bestowed upon it, but at all events it is not dull, and the collation of the Athoan MS preserved in the British Museum gives a special scientific value to this edition. Between the Athoan MS and the Vaticanus Mr. Rutherford thinks there is not much to choose, nor does he consider Suidas much better authority than the two sources mentioned. For his recension of the text he claims the character of conservatism, but when he does introduce his 'own tentamina' he does so with the same confidence that marks every line of his work. They are not numerous and few of them commend themselves irresistibly.

The edition has four indexes: 1. Index Fabularum; 2. An English Index; 3. A Greek Index; 4. Index Scriptorum and a welcome 'Graecitatis Babrianæ Lexicon,' due in great part to Mr. H. Duff, Fellow of All Souls College, and 'intended as an aid to the work which sooner or later must be undertaken, and to which so little has been done—the scientific Lexicography of the Greek language.'

Mr. Rutherford's 'New Phrynichus,' it seems, has already become a standard work of reference in England and his Babrius will extend the reputation gained by his previous labors. A little closer study of Chandler's 'Greek Accentuation' would have been of service to him, but on this point also an improvement is to be noted, though he writes *γάρη* in the text itself (95, 21) and emends a passage (107, 7) with *ἀμειβον*.

B. L. G.

Geschichtliche Entwicklung der Constructionen mit *πρίν*. Von Dr. JOSEF STURM. Würzburg: A. Stuber. 1882.

Dr. Sturm has done excellent service in his presentation of the historical development of the constructions of *πρίν*, and while I could have wished that he had made some use of the article on *πρίν* which appeared in this Journal, Vol. II, p. 465 foll.,¹ the coincidences are all the more gratifying to one who cares more for truth than for originality.

According to Dr. Sturm there are two principal periods separated from each other by sharp lines of demarcation. In the first period the use of *πρίν* is developing, in the second the development is completed.

The first period, which means Homer and Hesiod, shows us *πρίν* in its beginnings. The original construction *πρίν* with the infinitive was already developed, but as subjunctive and optative were just reaching vitality in Homer, no fixed

¹ I refer only to the theoretical discussion, for I have since discovered that the statistics of my collectors—inexperienced young men—were far from complete. This defect I had hoped to make good ere now by the dissertation of Lüth, *De usu particulae πρίν qualis apud oratores Atticos fuerit*, Rostock, 1877, but I have not been able to procure a copy. It is some consolation to know that Sturm had done the work over again before Lüth's dissertation had reached him; but he has only given a summary and not the references to the passages, so that I cannot make good the deficiencies in Demosthenes, which excited my surprise, if not my suspicion. See my article (l. c. p. 483).

norm of infinitive use as contradistinguished from subjunctive and optative uses could be attained. Hence the infinitive could be used indifferently after negative and after affirmative clauses. *Πάρος* is used with the inf. as well as *πρίν*, but *πάρος* is dying out, is never used with the subjunctive, and does not appear in Hesiod. The very rare subjunctive constructions betray the old parataxis. In Homer *πρίν* never takes *άν* or *κέν*; it is still purely adverbial.¹ Hence it is not yet suited to introduce a dependent clause in the indicative. The required sense is reached by *ἕως* or by *πρίν γ' ὅτε δῆ*, the latter formula not appearing in the subsequent period.

The second period embraces all the other authors of the classical time to Plato inclusive. The conditional relation was felt more and more as the subjunctive was developed more and more. Consequently the infinitive was restricted mainly to the affirmative relation, and on the other hand the connexion with the conditional sentence became very close. Parataxis vanishes; *πρίν* like other conjunctions takes the particle *άν*, becomes a full conjunction and admits the indicative. The present infinitive is used more freely than in the first period, in which the aorist infinitive was almost exclusively employed. The perfect also comes in. The dawn of the new period is seen in Hesiod. In comparison with Homer the subjunctive is more frequently employed, and on the other hand the shadow of the old period falls here and there on Euripides and Herodotos.

In the second period Dr. Sturm distinguishes three groups. The first is represented by the writers of the New Ionic dialect. *Πρίν ἤ* and *πρότερον ἤ* are used not only with the infinitive but also with the indicative and subjunctive aorist. The optative is not found; the indicative is used only after negative sentences, and then the conjunction *πρίν* is always strengthened by the particles *γε δῆ* or *δῆ*. The present infinitive is rare.

The second group embraces the poets and Thukydides. *Πρίν ἤ* has vanished, not to reappear in our field of observation, nor do we find it in Attic inscriptions. The indicative is used after affirmative as well as after negative sentences. In Thukydides the particle *δῆ* is used only after affirmative sentences, except once.² The aor. opt. reappears. Theognis is the first to use it in assimilation. The subjunctive present occurs once in Thukydides, once in the fragments of the comic poets. The present and the perfect infinitive become relatively more common, the latter especially in Euripides and Aristophanes.

The third group is made up of Xenophon, the orators and Plato, and shows the following peculiarities: (a) *πρίν* with the indicative is used only after nega-

¹ The paratactic origin of *πρίν* with subj. cannot be denied. See the passages cited in L. and Scott's Lexicon (7th ed.). But it is hard to see how the construction can be purely adverbial throughout. Wherever *πρίν* is preceded by *πρίν*, *πρόσθεν*, *οὐ πω*, it is on its way to the conjunctive, and the difference here as elsewhere between Homer and later Greek is the difference between tendency and universality. *Πρίν* with the inf., the original construction, is itself often conditional, final.

² There is no discernible reason for this, and besides the statement rests on a sad blunder, the same blunder that Kühner made, as I pointed out l. c. p. 469. 1, 51, 1; 1, 118, 2; 3, 29, 1; 3, 104, 7 are negative and not affirmative. 7, 39, 2 and 7, 71, 5 show persistency which brings out the 'until' idea. See the passage from Aischines cited below. While correcting the faults of others, I must not omit to correct my own inadvertencies. In the article cited p. 469, 13 l. from bottom, for '7, 71, 5 . . . διελύθη' read '3, 104, 7 . . . κατελύθη.' The false citation makes me contradict myself (p. 479, l. 3 from bottom).

tive clauses (except Aischin. i, 64), and never takes a particle (except $\pi\rho\acute{\iota}\nu$ γε X. Oik. 7, 7). (b) the indicative is most frequently used by Xenophon. In the Isokrates it is chiefly employed in $\text{o}\ddot{\upsilon}$ $\pi\rho\acute{\omicron}\tau\epsilon\rho\omicron\nu$ $\acute{\epsilon}\pi\alpha\nu\sigma\alpha\tau\omicron$ $\pi\rho\acute{\iota}\nu$ and similar phrases. In Plato it is dying out before $\acute{\epsilon}\omega\varsigma$. (c) In unreal sentences the indicative is found only in the orators and Plato. Euripides satisfies himself in two passages with the original infinitive. The present infinitive occurs with special frequency and reaches its height in Xenophon, and the present subjunctive and opt. are comparatively more common. (d) Instead of $\pi\rho\acute{\iota}\nu$ we find for the first time $\pi\rho\delta$ τοῦ with the infinitive. $\Pi\rho\acute{\omicron}\tau\epsilon\rho\omicron\nu$ η seldom does duty for $\pi\rho\acute{\iota}\nu$, and is limited to the infinitive. (e) η $\pi\rho\acute{\iota}\nu$, a new combination, emerges in Xenophon.

So much for the facts. As for the theory, Dr. Sturm argues against the explanation of $\pi\rho\acute{\iota}\nu$ with the inf. as arising from parataxis, and well he may, for it is sheer nonsense. The infinitive must be dependent, but how dependent? To the prepositional theory he is utterly opposed on the ground of the historical *salutis*. Such a construction would require the article, an old objection. Besides neither $\pi\rho\acute{\iota}\nu$ nor $\pi\acute{\alpha}\rho\omicron\varsigma$ is used as a preposition in Homer. Sanskrit analogies, such as *pura* with the inf., suggested by Wilhelm and taken up by Monro, are made doubtful by Jolly's refusal to consider these Sanskrit genitives and ablatives as true infinitives. The omission of η is extremely hazardous in view of the fact that Homer uses $\pi\rho\acute{\iota}\nu$ η only twice and $\pi\rho\acute{\iota}\nu$ with the inf. 79 times. Schömann's parallelism between $\pi\rho\acute{\iota}\nu$ with inf. and η $\acute{\omega}\sigma\tau\epsilon$ with the infinitive is condemned as unhistorical. $\Pi\rho\acute{\iota}\nu$ is fullblown — $\acute{\omega}\sigma\tau\epsilon$ at best emergent. Passing by other theories of which enough has been said in the article already referred to, we come to the one on which Dr. Sturm builds. The infinitive is the limit of $\pi\rho\acute{\iota}\nu$. $\Pi\rho\acute{\iota}\nu$ γενέσθαι is 'sooner with reference to.' This is the explanation given by Wagner, the explanation adopted by Holzweissig, as one of the certain results of comparative grammar, and there is no denying that it does not require so wide a leap as the prepositional theory. And yet the parallels are not altogether satisfactory. In O 642: $\acute{\alpha}\mu\epsilon\acute{\iota}\nu\omega\nu$ $\pi\alpha\nu\tau\omicron\acute{\iota}\alpha\varsigma$ $\acute{\alpha}\rho\epsilon\tau\acute{\alpha}\varsigma$, $\eta\mu\acute{\epsilon}\nu$ $\pi\acute{\omicron}\delta\alpha\varsigma$ $\eta\delta\acute{\epsilon}$ $\mu\acute{\alpha}\chi\epsilon\sigma\theta\alpha\iota$, in A 258: $\omicron\iota$ $\pi\epsilon\rho\acute{\iota}$ $\mu\acute{\epsilon}\nu$ $\beta\omicron\upsilon\lambda\lambda\eta\nu$ $\Delta\alpha\nu\alpha\omega\nu$, $\pi\epsilon\rho\acute{\iota}$ δ' $\acute{\epsilon}\sigma\tau\epsilon$ $\mu\acute{\alpha}\chi\epsilon\sigma\theta\alpha\iota$ the preliminary accusative saves the construction; ζ 230: $\mu\epsilon\acute{\iota}\zeta\omicron\nu\acute{\alpha}$ τ' $\epsilon\acute{\iota}\sigma\iota\delta\acute{\epsilon}\epsilon\iota\nu$ $\kappa\alpha\iota$ $\pi\acute{\alpha}\sigma\sigma\omicron\nu\alpha$ is nearer, and so is ν 33: $\acute{\alpha}\sigma\pi\alpha\sigma\acute{\iota}\omega\varsigma$ δ' $\acute{\alpha}\rho\alpha$ $\tau\tilde{\omega}$ $\kappa\alpha\tau\acute{\epsilon}\delta\omicron\nu$ $\phi\acute{\alpha}\omicron\varsigma$ $\eta\epsilon\lambda\acute{\iota}\omega\iota\omicron$ $\delta\acute{\omicron}\rho\pi\omicron\nu$ $\acute{\epsilon}\pi\omicron\acute{\iota}\chi\epsilon\sigma\theta\alpha\iota$, but the position of $\pi\rho\acute{\iota}\nu$ so far away from the verb, to which, on this theory, it really belongs, is unexplained. I cannot help thinking that Schömann, however wrong historically, was not so hopelessly wrong grammatically in his parallelism between $\pi\rho\acute{\iota}\nu$ and $\acute{\omega}\sigma\tau\epsilon$. $\acute{\omega}\sigma\tau\epsilon$ as Sturm himself has pointed out is in the same line of development, though later. We must always start with the final use of the infinitive, and if $\pi\rho\acute{\iota}\nu$ with the infinitive is to begin as 'prevention' and end as 'priority' we shall be nearer the truth than if we begin with some such abstraction as 'in Bezug auf.' But whatever the origin, the question of the prepositional feeling remains untouched. Nobody considers $\acute{\omega}\varsigma$ with the acc. a preposition, and yet it is in feeling a preposition. Nobody considers 'than' a preposition, and yet it behaves as such. We must learn to respect the conceptions of the users of language.

The combination $\pi\rho\acute{\iota}\nu$ γ' $\acute{\omicron}\tau\epsilon$ $\delta\eta$ would seem to postulate a quasi-prepositional use of $\pi\rho\acute{\iota}\nu$, and one might be tempted to compare the history of $\acute{\epsilon}\omega\varsigma$, $\mu\acute{\epsilon}\chi\epsilon\tau\epsilon$ ($\acute{\alpha}\chi\epsilon\tau\epsilon$)

and perhaps even *ἔστε*. Dr. Sturm sticks to the original parataxis, *πρίν γε* belongs to the first part, *ὅτε δὲ* begins a new sentence. So M 436: *ὡς μὲν τῶν ἐπὶ ἴσῃ μάχῃ τέτατο πόλεμός τε | πρίν γ' ὅτε δὲ Ζεὺς κῦδος ὑπέρτερον Ἑκτορι δῶκεν*, must be interpreted 'The battle hung in the balance—at least before: when now Zeus gave Hector the victory = until Zeus gave H. the victory.' To this it may be objected that if *πρίν* had already become almost a formula with the infinitive, there is no reason why the analogy should not have been extended to the finite constructions.

As to the prevalence of the aorist infinitive in Homer, Sturm simply accepts what Cavallin had said about the tenses of the infinitive. We do not need to be told by Cavallin that the tenses of the infinitive have to do primarily only with the kind of time. That has been a common possession for several decades, and my objection to this statement is that the student is put off with a formula which he does not always know how to apply, and I think it well to give emphasis to the negative element of *πρίν* in order to bring the use of the aorist inf. more clearly to the consciousness. The prevalence of the finite aorist after the negated *πρίν* is simply in accordance with the general needs of the temporal sentence. Overlapping¹ action is less common than clear priority and posteriority. Hence *πρίν ἄν* with the pres. subj. is rare, and Dr. Sturm has actually denied its existence in the tragic poets in spite of Sophokles, Phil. 1409.

Dr. Sturm defends the passage in Solon (36, 21): *οὐτ' ἄν κατέσχε δῆμον οὐτ' ἐπαύσατο, | πρίν ἄν ταραξάσας πῖαρ ἐξέλεη γάλα* on the ground that the author had in his mind a familiar proverb with the future or the optative with *ἄν* in the lead (*οὐ παύσεται* or *οὐκ ἄν παύσαιο*). This is a kind of *repraesentatio* and is the only possible explanation, but not satisfactory in an unreal sentence as I have said (A. J. P., I 458) where I suggested *πρίν ἀναταράξας πῖαρ ἐξεῖλεν γάλα*, or better *ἐξελεῖν γάλα*, referring to the very passage in Eur. Alc. 373 which Dr. Sturm has cited. I am glad to see that he has accepted Förster's *ἰκέσθαι* for *ἰκηται* in Simon. Amorg. I, 12, a verse treated at length in my article cited (p. 468), though neither Förster nor Sturm has tried to account for the error.

I would add that the spread of *πρίν ἢ* in late Greek seems to be due partly to the mechanical grammar of the post-classic period, partly to the influence of Herodotos. The final step, which we find perpetuated in modern Greek, the use of *πρίν ἢ* with subj. in all classes of sentences, affirmative and negative, is not noticed by Dr. Sturm, although it might fairly be considered to lie in the line of development.

As I have previously intimated, the practical results of Dr. Sturm's treatise have in the main been anticipated, but it is one thing to have laid down the correct lines of usage, another to show the history of the construction with exhaustive proofs, and I should be the last one to withhold from Dr. Sturm the meed of praise for his laborious and in the main careful piece of work.

B. L. G.

¹ Take one of the rare imperfects. Dem. 9, 61: *οὐ πρότερον ἐτόλμησεν οὐδεὶς ῥῆξαι φωνὴν πρίν πρὸς τὰ τεῖχη προσήεσαν*. The positive expression would be *ἐπειδὴ . . . προσήεσαν, τότε δὲ . . .*

Lysiae Orationes XVI. Edited by E. S. SHUCKBURGH, M. A. Macmillan & Co., 1882.

The orations comprised in this edition are those which are numbered 5, 7, 9, 10, 12, 13, 14, 16, 17, 19, 22, 23, 24, 28, 30, 32. The selection is probably as good a one as could have been made. It nearly coincides with that adopted by Frohberger in his school edition, which, however, Mr. Shuckburgh does not seem to have used or to have known. The text used is substantially that of Scheibe in the Teubner series; but occasional variations from it are made, which are for the most part noted at the foot of the pages. The editor thus describes his own views in preparing the book: "My object in the commentary has been to bring before the student, as far as possible, the circumstances, social and historical, in which the speeches were delivered; and at the same time to direct his attention to an accurate study of the language." Of these two purposes, it will probably be thought that the former has been most successfully accomplished. The editor has adopted an excellent method for enabling students to follow with interest the arguments of the speeches. An account of the circumstances under which each was delivered, so far as these can be ascertained, is placed before the notes in each case; but in addition to this, throughout the speeches themselves at frequent intervals, the editor has inserted spirited summaries of the argument of the adjacent sections. Such historical or antiquarian information as is necessary for the understanding of allusions is supplied in the notes with succinctness and accuracy for the most part; and there are five useful appendices, the most elaborate being on the usurpation of "The Thirty." On the whole and notwithstanding all the shortcomings which have been noted, a few of which will now be referred to, this book may be cordially recommended to instructors as very much more useful than any edition with English commentary which has heretofore been accessible to American students.

In the text itself, set up as it was from Scheibe's printed pages, the editor seems to have trusted too much to the diligence of the proof-reader; for such words as *πεδίῳ*, *σώματος*, *ἀπετόλμῃσε*, *τυγχάνει*, occur not with extreme rarity. But the same scapegoat can hardly bear the blame of 'C. Scheiber in the Taubner series' of the preface, or of the *π* which, on p. 8, Baiter has assumed, perhaps in emulation of the *pp* which Sauppe enjoys. Indeed, there are too many marks of hasty work in both text and notes. The citation made in the very first note is rendered unintelligible by the omission of a word. On p. 194, in a note on the *μέτοικοι*, the writer tells us that they were "subject to military service, though they were not admitted to serve as hoplites"; and in confirmation of this we are referred to Xen. Vect. 2, 2. If that passage is examined, it will be seen that Xenophon expressly asserts, and at the same time deprecates, the liability of the *μέτοικοι* to serve as hoplites; and Boeckh also, who is referred to in the same note, says that they served as hoplites, at first only among the garrison-soldiers, but at a later time in campaigns. The statement, also, that they "were liable for any offence against the various enactments concerning them to be sold as slaves," is not supported by the passage of Boeckh referred to, where we are told they incurred such liability only if they failed to pay the *μετοίκιον*, and is denied by Hermann (p. 226 of the London edition,

1836, which is the one Mr. Shuckburgh has made use of), who says that they "were sold as slaves only when they assumed the peculiar privileges of actual citizens, omitted to pay the tax, and, probably, if they neglected to choose a patron." The note on the *δαιτηταί*, on p. 222, is equally inaccurate. The question as to their number cannot be regarded as entirely settled as yet, but probably no one will be found to support Mr. Shuckburgh's statement that there were only forty, four being chosen annually by lot from each tribe. See on this matter Pérron *Droit Public d'Athènes*, p. 289 ff. The assertion, too, that "before the time of Demosthenes all civil suits were heard first before one of them," is much too broadly stated. Hermann, §145, goes fully as far as the authorities warrant, in saying that the system of employing arbitrators "freilich später um der damit verknüpften geringeren Kosten und Gefahren willen eine solche Ausdehnung erhalten hatte, dass dieselben förmlich als eine erste Instanz in den meisten Privatprocessen betrachtet werden dürfen." On p. 303 we have a strange interpretation of *ἐδόκουν κάκιον γεγυῆναι* 'they seemed to be of a somewhat inferior character.' The true explanation is quoted from Bremi (cf. Cobet, V. L. p. 158), that the phrase means 'worse-born, not true-bred Athenian,' but is deliberately rejected, and we are told that we must suppose "a phrase *κακῶς γίγνεσθαι* equivalent to *κακῶς ἔχειν*, 'to be ill,' i. e. in behavior, reputation, etc." In Or. XII 31, where the orator says that Eratosthenes, though sent, as he asserted, by the Thirty to arrest Polemarchus, might easily have declared that he did not meet him or had not seen him, *ταῦτα γὰρ οὐτ' ἐλεγχον οὔτε βάσανον εἶχεν, ὥστε μηδ' ὑπὸ τῶν ἐχθρῶν βουλομένων οἷόν τ' εἶναι ἐξελεγχθῆναι*, we are told, p. 237, to translate the last words 'did not involve or admit of refutation or examination by torture.' On p. 246 we read: "for the name of Aristocrates as a leader of the moderates we are indebted to Lysias, not Thucydides"; but in Thuc. VIII 89, 2, we find *Ἀριστοκράτην τὸν Σκελλίου* mentioned along with Theramenes, and yet Thuc. VIII 90 is referred to in this very note. On p. 283 we are told to translate *τὸν πατρός πρὸς μητρός πάππον*, 'his great-great-grandfather on his mother's side.' This error is due to the mistaken reference of *αὐτοῦ* just before to the elder instead of to the younger Alcibiades. There is either some confusion in the passage of Isocrates referred to, or the grandfather as well as the father of Cleinias must have been named Alcibiades. See the table in Fennell's Pindar, Pyth. VII.¹

But little space is left to speak of the grammatical notes. Reference is frequently made to Prof. Goodwin's books, and occasionally to the Greek syntax of Madvig and of Clyde. A considerable number of points have been marked for notice; but they are chiefly faults of omission. As a single instance we may take Or. XII 89 (p. 55) *πολλῶ ῥάδιον ἡγοῦμαι εἶναι ὑπὲρ ὧν ὑμεῖς ἐπάσχετε ἀντειπεῖν, ἢ ὑπὲρ ὧν οὗτοι πεποιθήκασιν ἀπολογήσασθαι*, where *ῥάδιον*—*ἢ* is passed without remark. And even when a note is given it is sometimes not as clear as could be desired. E. g. on XII 82, *τί γὰρ ἂν παθόντες δίκην τὴν ἀξίαν εἴσαν τῶν ἔργων δεδωκότες*; we have (p. 249), "'will they have fully paid the penalty they deserve?" For this periphrasis for a perfect optative see Madv. §180 d. It refers to a future supposition as to things that would *thén* be past."

¹ Mr. Fennell, it is true, gives *Alcibiades* as the name of the grandfather of Cleinias, leaving the father unnamed. But that *in this family* there is no improbability that the name of both was *Alcibiades* is shown by the fact that the Alcibiades of the speech was the son of the famous bearer of the same name.

Mr. Shuckburgh's opinion of Theramenes (p. 245) may be quoted to conclude this notice. "I think it is clear, from a careful review of our authorities, that Theramenes was an honest man. But he was a philosopher and a doctrinaire, and had a Socratic ideal of a perfect state which, both in the time of the Four Hundred and in that of the Thirty, he thought he saw his way to realise, but was quickly undeceived by the development of selfish aims in his colleagues. As, therefore, he sympathised neither with the prejudices of the Democrats, nor with the self-seeking of the Oligarchs, he came to be trusted by neither."

C. D. MORRIS.

Gorboduc, or Ferrex and Porrex; a tragedy, by Thomas Norton and Thomas Sackville, A. D. 1561. Edited by L. TOULMIN SMITH. Heilbronn: Verlag von Gebr. Henninger. [Englische Sprach- und Literaturdenkmale des 16, 17 und 18 Jahrhunderts; herausgegeben von KARL VOLLMÖLLER, I.]

This series, which an enterprising German publishing house has undertaken, and of which Gorboduc is the first number, will meet a real want of scholars, in England and America as well as in Germany. The series could also not have been better begun than with this piece, the first English Tragedy. To many it was not accessible in Dodsley's "Old Plays," and was unfortunately omitted in the last (1874) edition of that collection. The other editions are somewhat rare. Arber announced it in 1869 and subsequently, as among his forthcoming Reprints, but it did not appear. The edition now issued is not only handy and inexpensive, with clear type and on good paper, but has also an additional value for scholars in the full collations of the editions of 1565 and 1590, appended at the foot of each page. The text itself is that of the (authorized) edition of 1570. The editor, Lucy Toulmin Smith, a contributor to the *Anglia*, and joint editor for the Early English Text Society of *English Gilds*, has also prefixed an English Introduction, and added explanatory notes, also in English. The work of editing seems to have been well and carefully done; the collations and Introduction are especially good. The notes are in part less valuable. On the one hand explanations are given such as no English scholar, and in many cases no intelligent reader of English literature needs, and on the other, interesting questions of grammar, phonology, etc., are only slightly touched upon or omitted altogether. Where is the need, for instance, in an edition intended to supply to scholars the materials for a critical text of the oldest English tragedy, of explanations like these: *reck*, to heed, to care for (390), *marches*, borders (414), *avowed*, a-vowed, promised on oath (574), *guerdon*, reward, recompense (1437), *in fine*, in the end, at last (1539), *want*, lack (1715)? There are surely enough interesting forms of speech inviting discussion, and questions of all sorts connected with this play, to make us regret such a waste of valuable space.

L. 465 *to reue me halfe the kingdome*, the editor is hardly correct in saying: "*reue me*, the preposition is suppressed, compare l. 513 *to reuee from me my native right*." It is the new use with the preposition that is 'suppressing' the time-honored dative of interest, cf. 809 *To reauue me and my sonnes the hatefull breath*. 1691, *courage* is said to have been 'brought in by Chaucer.' No doubt he helped bring it into vogue, but he did not introduce it. The word occurs in Early

English Alliterative Poems, ed. Morris, and in the Ayenbite of Inwyrt, both of which were written before Chaucer was at work on the Canterbury Tales; and Robert of Gloucester's Chronicle (end of the 13th century) has *corageus*.

On p. xxv the editor has some good remarks on the instructive differences between the earlier and later edition in the grammatical forms. It is to be regretted that such differences are not oftener pointed out and explained in the notes. For instance, where the two earlier editions have forms like *wast* (919), or *hast* (935), the edition of 1590 usually adds *e*, *waste*, *haste*, etc.; 1032 only the first edition has *wast*, the others *waste*. For the significance of such final silent *e*, as regards the lengthening of the stem vowel *a*, 'a feeling which perhaps came in towards the close of the 15th century,' see Ellis, Early English Pronunciation, p. 567.

P. xxv, the *d* which represents Anglo-Saxon *ð* in many words is spoken of as 'the old *d*,' and 383 (should be 382) *furder* is referred to as an instance where the ed. of 1590 has *further*. Under line 210 we find the note: "*Furder*, the A. S. *ð* was often retained by the early printers as *d*. It frequently so occurs in the ed. of 1565." This seems to misapprehend the facts of the case completely. Northumbrian Anglo-Saxon, Orm, Hali Meidenhad, Lazamon, and many other early monuments exhibit frequently *d* for *ð* (*p*). It is extremely common in Middle Scotch also, and Murray (Dialect of the Southern Counties of Scotland, p. 121) says: "the *d* (before *r*, as in *furder*) was pronounced, I believe, neither as in *dare* nor in *there*, but with an intermediate sound, the front or dental *d* (formed by touching the teeth with the tip of the tongue), still used in the same words in the Northern English Counties."

The references in our edition to Anglo-Saxon forms contain a few errors: *behatan* (166) should be *behdtan*; 762 an A. S. form *scyl*, reason, is cited. Both word and meaning are incorrect. Bosworth does indeed give *scyle*, difference, variety, distinction, on the doubtful authority of Somner, but there is no accredited A. S. form of the word. It is derived from the Old Norse *skil*, distinction, discernment. The meaning attached to *unskilfull* (361), 'wanting in knowledge,' should be 'wanting in discernment,' and the note to 201 should read not 'reasonable' but 'discerning.' The instances in Ancren Riwele and elsewhere, in which *skill* has the derived meaning 'reason,' only confirm this.

1002, the form *abyczan*, nearly as common in A. S. as the *abiczan* given in the note, would have been a better illustration of *bye*, to pay for, since the *y* represents original *u*.

1160, an A. S. verb *racan*, to scrape (rake), is referred to. It should be *raccian*. The form *raken* (without *i*) is found in very early English, however, though connected with Old Norse *raka*. Compare Mätzner, Altengl. Sprachproben, I 82, l. 2132.

In addition to the editor's remarks on alliteration, pp. xv-xvi, it is worth while to note that in two cases, at least, the edition of 1570 preserves the alliteration complete where both the other editions miss it. This can hardly be an accident, and tends to show that this authorized edition was prepared for the press with some care. The edition of 1590 is based upon that of 1565; which accounts for the recurrence in it of the non-alliterative forms of the lines in question (350, 538). Bodensstedt remarks of Shakspeare's Macbeth that the words *blood* and *bloody* 'reappear on almost every page, and run like a red thread

through the whole piece.' A far more surprising frequency of the words is noticeable in *Gorboduc*. In the 4th and 5th acts (Sackville's part) they occur 33 times. The words *egal*, *egalnesse* = equal, etc., common enough in Middle English, but rare in Shakspeare (cf. *Tit. Andron.* IV 4, 4), occur very often, *e. g.* 111, 220, 250, 255, 270, 336, 412, 516, 855, 1139, 1159. Even Chaucer, who uses both forms, *egal* and *equals*, is not nearly so partial to the former as the authors of this tragedy, nearly 200 years later.

In conclusion we heartily recommend this, in the main, excellent edition of *Gorboduc* to all scholars and lovers of English literature.

H. W.

Sammlung Französischer Neudrucke. Herausgegeben von KARL VOLLMÖLLER.
Nos. 3, 4, 5. Heilbronn: Henninger.

This collection is one of the most important that have yet begun to appear in any department of French philology. The difficulty of getting texts at a moderate cost to work from has been the chief drawback to the progress of middle-French study. As the transition period from the old to the modern language it is now beginning to claim the attention of scholars that it deserves, and in a few years, with these new facilities for investigation, we may expect rich results drawn from them for the department of grammar, and especially for the historic development of French syntax and versification.

Numbers 1 and 2 of the collection appeared in 1881, the former containing *Le Festin de Pierre* ou *Le Fils Criminel*, by de Villiers, and edited anew by W. Knörich; the latter, *Traité de la Comedie et des Spectacles*, by the celebrated Armand de Bourbon, Prince de Conti, and newly edited by Prof. Vollmöller himself. We now have before us the three following numbers of this interesting series, which, together with the sixth, are edited by Prof. Wendelin Förster, of Bonn, and consist of *Les Tragedies*, de Robert Garnier (1534-90). All three of these volumes are faithful reprints of the third general and first complete edition of Garnier's works, published at Paris only five years before his death. They are furnished with the variations of all preceding general editions, and are to be followed in the fourth volume (No. 6 of the series) with a short glossary for the whole set, containing all words not found in Sachs's French Dictionary.

It was the year in which Ronsard, the most celebrated French poet of the sixteenth century, died (1585) that the first complete edition of Garnier's works was brought out at Paris by the then celebrated publisher Patisson. It is this edition, as annotated and revised by the author himself, which Prof. Förster has made the basis of his text, adding thereto not only the various readings of the general collections, as just mentioned, but also those of the single issues of each tragedy—*Porcie* 1568, *Hippolyte* 1573, *Cornelie* 1574, *Marc Antoine* 1578, *La Troade* 1579, *Antigone* 1580, *Bradamante* 1582—with the exception of *Les Ivifves*, which, so far as is now known, was never published separately.

In the edition of 1585 these tragedies are not arranged chronologically, but have the following order: *Porcie*, *Cornelie*, *Marc Antoine*, *Hippolyte*, *La Troade*, *Antigone*, *Les Ivifves*, *Bradamante*, and Vollmöller in re-editing the text has divided up his material so as to give it to us in as nearly equal parts as possible. He

therefore puts Porcie, Cornélie, and Marc Antoine in Vol. I; Vol. II comprises Hippolyte and La Troade; Vol. III, Antigone and Les Ivifves; while Vol. IV will contain Garnier's *chef-d'œuvre*, Bradamante, with a short biographical sketch of the author and the vocabulary noticed above. To the first of these pieces (Porcie) all the orthographic variations will also be given, that the student of mid-French may be better able to appreciate the fact that there did not exist in the XVI century a regular, uniform mode of writing.

Garnier wrote eight tragedies in all, and of the seven to which the general reader here has access he will find Les Ivifves the most original, the most interesting and altogether the best. It is here that the author cuts loose from his servile imitation of Greek authors, which so strongly characterizes his preceding works, and stimulated by a noble sentiment, draws more upon his own individuality for the treatment of his subject, which, as he himself thinks in his dedication, ought to appeal in a peculiar manner to the best impulses of the human heart. He was an intimate friend of Ronsard, who was most lavish in the praise of his works, as may be seen in his letter prefixed to La Troade:

" Si Bacchus retournoit au manoir Plutonique,
Il ne voudroit Eschyle au monde redonner,
Il te choisiroit seul, qui seul peux estonner
Le theatre François de ton Cothurne antique."

Marot, Du Bellay, Rabelais and Montaigne, all contemporaries of the author of Les Tragedies, highly appreciated his literary productions, and that they were extensively read is shown by the fact that in the first two decades of the XVII century they passed through about thirty editions. His tragedies mark an epoch of remarkable advance for the French stage, which has been justly characterized by Adolf Eberts in his excellent *Entwicklungsgeschichte der Französischen Tragödie*, where he has devoted to this poet a brilliant study with reference to his paramount importance for the development of the French drama.

A. M. E.

GULIELMO STUEMUND. *Due Commedie Parallele di Difilo*. Torino: Ermanno Loescher. (21 pp. with an apographum Codicis Ambrosiani G. 82 sup. rescripti paginae 244.) 1883.

On the 28th of September, 1882, at the thirty-sixth meeting of German philologists and school-teachers in Karlsruhe, Prof. Wilhelm Studemund delivered a most interesting address on two parallel comedies of Diphilus. An Italian translation of this address by Dr. Aristide Baragiola, prepared for the *Rivista di Filologia ed Istruzione Classica*, forms the subject of this notice.

After showing that the fertility of production of the famous Greek poets of the new comedy, Menander, Philemon, and Diphilus, was due largely to the employment of similar plots or motives, spiced with a variety of incidents and characters, Prof. Studemund calls attention to the frequent role which shipwreck plays in these plots, and the final disentanglement of the knot by means of an *ἀναγνώρισις*, often brought about by means of toys (*crepundia*) or trinkets belonging to the person in whom the chief interest centres. Of this sort is the play entitled *Rudens*, which was composed by Plautus, probably in the last decade

of his life, in imitation of a Greek original of Diphilus, the Greek title of which is not however given in the Prologue. Prof. Studemund presents a brief outline of the play, and shows that it must have followed the Greek original much more closely than the burlesque *Casina*, which is based upon the *Κληροδόμενοι*, also a comedy of Diphilus. Now the *Vidularia* (Wallet-comedy), of which considerable fragments are found in the Ambrosianus and scattered through the Roman grammarians, shows a striking resemblance in its situations to the *Rudens*, so that the latter might just as well have the title *Vidularia*, and the very fact that it is not so called would seem to indicate a later date of composition. The *Rudens* it will be remembered gets its name from the rope wound about the *vidulus* which the fisherman Gripus has hauled up from the sea in his net. The scene of the *Vidularia* like that of the *Rudens* is laid on the sea coast. There is a fisherman, Gorgo, a shipwrecked youth of good family named Nicodemus, an evil-minded slave, Cacistus, who fights with Gorgo for the possession of a *vidulus* dragged up by the latter's net. The *vidulus* contains a ring which eventually brings about the recognition of Nicodemus by his father Dinia, who fortunately lives close by. Other details, for which there is no space here, by their surprising correspondence with the *Rudens*, make it probable that the original of the *Vidularia* was also the work of Diphilus. But Prof. Studemund has raised this probability to a certainty. With a patience and indefatigableness of which few men would be capable, he has succeeded after repeated efforts, which in all consumed quite a month, in so far deciphering a page of the Ambrosian palimpsest as to make it clear that it contained a Prologue to the *Vidularia*. The seventh and eighth lines, although by no means every letter can be read, have been reconstructed by him with great acumen and great probability as follows:

Sc(h)edi[a haec] vo[catast a] g[r]ae[co com]o[edia]
[P]oeta ha[nc] noster f[ecit] V[idularia]m.

Now comes the interesting part. *Σχέδια* as a comedy-title is attested but for one Greek poet, and that poet is Diphilus. The *Etymologicum Magnum* has preserved one verse of the play (cf. A. Meineke, *Fragmenta Comico-rum Graecorum*, I, p. 456; IV, p. 410; V, p. cccviii). The appended apographon of the page in question of the Ambrosianus is a marvel of painstaking accuracy. The discovery itself is one which will interest all Plautine scholars. The labor which it has cost will probably be appreciated by few. If Prof. Studemund could live always, with his keen vision unimpaired, we might hope for many palimpsests to yield us such surprises. Meantime we should be only too grateful if the punctilious 'Thensauochrysonicocrypsides' would vouchsafe us at once his apographon of the Ambrosian palimpsest, and give us the fruits of his future vacations in Milan in the form of addenda or corrigenda.

MINTON WARREN.

Altfranzösische Bibliothek. Herausgegeben von Dr. WENDELIN FÖRSTER.
Dritter Band. Heilbronn: Henninger.

Three volumes of this important collection have already appeared, viz. Vol. I, Chardry's *Josaphaz*, Set Dorman und Petit Plet, an Anglo-Norman poem of the XIII century, edited by J. Koch; Vol. II, *Karls des Grossen Reise nach*

Jerusalem und Constantinopel, an Old French poem of the XI century, edited by Prof. Edward Koschwitz of Greifswald; Vol. IV, Lothringischer Psalter, an Old French translation of the XIV century, edited by the late, much lamented Friedrich Apfelstedt. We have here before us the third volume of the series, Octavian, altfranzösischer Roman, nach der Oxforder Handschrift, Bodl. Hatton 100 (Herausgegeben von Prof. Karl Vollmöller) of the University of Göttingen.

This Bodleian codex is in small octavo form, contains 108 leaves, and both from the language and from historic references found in it must be assigned to the epoch in the thirteenth century when Jerusalem was in possession of the Christians, that is, between 1229 and 1244. In a portion of the MS published in England as far back as 1809—(J. J. Conybeare: The romance of Octavian, Emperor of Rome, abridged from a MS of the Bodleian Library, Oxford, 1809)—the editor attempted to show that the author was an Anglo-Norman and that the poem was written in England, but according to the investigation of the language carried out in the present edition there can no longer be any doubt about its being originally a Picard production, with certain variations of form that have naturally crept into it through copyists. The author is not known, but the poem as we have it here is the work of an Anglo-Norman copyist, who has mixed up Norman with Picard forms, in such a way, however, that the original dialect is easily recognizable. It is composed in regular eight-syllable verse, which has been frequently tampered with by the copyist, who has seen fit sometimes to increase, sometimes to cut short the legitimate number of syllables.

There is a *chanson de geste*, Florent et Octavien, belonging to the fourteenth century, and yet unpublished, and of which three MSS exist in the National Library at Paris. With this later treatment of the same subject Prof. Vollmöller compares the Oxford text and finds them to agree in all essential points up to near the close of the latter, which rapidly comes to an end, while the *chanson* goes on, according to the style of that time, and brings in all sorts of extraneous matter connected with secondary personages, repetitions, long drawn-out tales, etc., etc. From this striking agreement in the main line of the story the editor concludes that both documents are based upon an old *chanson de geste*, probably belonging to the twelfth century, and which is more faithfully reproduced in the Octavian, published here, than in the later *chanson* of the fourteenth century. Extensive extracts from the latter are to be found in the *Histoire littéraire de la France*, Vol. XXVI, p. 334 et seq. (1873), where our present text is simply mentioned as "quatrième manuscrit de Florent et Octavian."

Dr. Sarrazin of Marburg is now at work on an edition of the middle-English Octavian poem, in which he will discuss its relation to the French version. This will be likely to throw much light on the origin of the different sets of MSS of this favorite theme of the middle ages, and thus be of great interest to scholars of the Romance field, besides furnishing them with more material for the study of the close linguistic relations of the English and Normanized version before us.

A. M. E.

REPORTS.

GERMANIA. Vierteljahrsschrift für deutsche Alterthumskunde. Herausgegeben von Karl Bartsch. Wien, 1882.

Soon after the publication of P. Erasmus Müller's Sagabibliothek, it was admitted by most scholars that the Thidrekssaga was indebted to a mixing of several sagas for its origin, some of them but loosely joined to the central figure, Thidrek of Bern, and in this respect none more so than the story of the jarls Iron and Apollonius.

Friedrich Neumann now opens the first number with an article in which he proposes to show that this story consists of two separate sagas blended into one in the Thidrekssaga. Furthermore, to reproduce as nearly as possible according to context their original form, trace the connection of the Apolloniussaga with the Kudrunsaga and explain the origin of chapters 245-75 in the Thidrekssaga. The article brings to bear a good deal of the light of common sense upon the subject, and the conclusions arrived at by Neumann, we think, are sound. The separate sagas of Iron and Apollonius were rather unskillfully united by the writer of chapters 245-75. The two jarls were made brothers, and to connect them with the heroes of the Thidrekssaga the names of Attila, Dietrich, Ermanrich and others were arbitrarily introduced. As regards the points of similarity between the Apolloniussaga and the Kudrun, we must confess that they are often as striking as are found in other sagas quoted by editors of the Kudrun, "und selbst wenn wir bei dem Mühlenhoffschen Kudrun text schwören sollten," which we do not, having always looked upon this reading as an anthology of 'âventiuren' from the epic which, according to the taste of Mühlenhoff, were the most beautiful.

C. Marold continues his article "Kritische Untersuchungen über den Einfluss des Latein. auf die Gothische Bibel übersetzung (cf. American Journal of Philology, Vol. II, 7), and C. Mogk prints eleven fragments of one of the many versions belonging to Rudolf v. Ems' "Weltchronik." The original leaves (twelve) are in the Royal Library in Copenhagen, and according to Edzardi were found attached to the covers of some law books in 1862 by assistant librarian Weeke. They seem to have been written about 1300, and represent a new phase of that favorite work of the middle ages.

Fedor Bech in a brief paper draws attention to a verb *dougen*, *tougen*, occurring with Middle German writers. The places where it is found are either not mentioned by Lexer in his M. H. G. Wörterbuch, or, following W. Grimm's and Pfeiffer's explanation of the word, placed with the wrong verb. Earliest and most frequently it is found in writings that originated in the west of Middle Germany.

Ich dougen des scharpfen swerdes slach (25, 7)

Owê wat wir dougen (29, 6).—*Marienlegenden*, ed. W. Grimm.

Grimm in a note says *dougen* = verborgen tragen, verheimlichen, and Lexer accordingly places it under *tougen* = verheimlichen, with which it has nothing to do, but evidently belongs to the Low German *dōgen* = leiden, erdulden (cf. Schiller-Lübben, M. N. D. Wörterbuch, I 532). Pfeiffer in his glossary to Nicolaus v. Jeroschin (east of Middle Germany) identified *dougen* with *douwen* = verdauen, and Lexer notes *dougen* as a secondary form of *dōuwen*, Vol. I, 455 (cf. Weinhold Gramm. §206, Müller-Zarncke M. H. D. Wörterbuch, I 386a, Schade Altd. Wörterbuch, p. 97). On p. 1480, Vol. II, Lexer only has the noun *toufe* as a stf. In the "Wartburgkrieg," 116, 6 ed. Simrock, occurs *mit der toufen*, and in the "Parzival," 43, 6, *starber āne toufen stt* (cf. Lexer Nachträge, 375, *toufen* stn.). Bech suggests a nominative *toufene*, *toufen*, as a secondary form of *toufe* (cf. Grimm Gram. 2, 171, Weinhold Gram. § 256).

Vernaleken furnishes a parallel to Grimm's fable "Das wasser des Lebens." This version of the ancient and popular myth which he gathered in the Schratenthal in Lower Austria differs in the main but little from Grimm's story.

Reinhold Bechstein reviews Alwin Schultz's work "Das höfische Leben zur Zeit der Minnesänger," I Vol., Leipzig, 1879. In the course of his eulogy on the book he says that he cannot help being in a measure vexed that an art historian should have taken the initiative in a matter which so entirely belongs to philology. But when he looks about among his fellow-philologists he can not find one—Weinhold excepted—who would be able to write a book like this one. This is a lamentable fact in the midst of a science that otherwise does such good work. "Thus it cannot remain," he exclaims, "Wir müssen den realien fortan einen grösseren einfluss einräumen. Die realien müssen unsere kritischen und hermeneutischen, selbst unsere grammatischen studien durchdringen und befruchten, sonst bleiben wir im leblosen krame stecken."

The Book Notices of the first number close with favorable criticisms by K. J. Schröter and Felix Liebrecht of Amelie Sohr's book "Heinrich Rückert in seinem Leben und Wirken," Weimar, 1880, and Eva Wigström's (Ave) Folk-digtning, samlad och upptecknad i Skåne, Köbenhavn, 1880.

The Miscellany contains a rather spirited reply from G. Milchsack to Anton Schönbach's adverse criticism (Anzeiger f. d. Alt. 7, 1881) of M.'s edition of the Heidelberg Passion play and two fragments (Passional and Konrad's Trojanerkrieg) by Bartsch.

R. Springer contributes the first article of the second number "Die legende vom Judenknaben." Of the popular legend of the Jewish boy who, with his Christian playmates, goes to communion and is punished for it by his father by being thrown into the flames, but saved from death by the Virgin, we possess not less than 5 Greek, 14 Latin and 8 French texts (cf. Bibliotheca normannica, ed. Suchier, Vol. II, Halle, 1879). Besides the versions in Spanish, Arabic, etc., we have two in German, "Das Jüdel," published by Hahn (poems of the 12th and 13th centuries) and Mühlenhoff (Altdeutsche Sprachproben), and "Der Judenknabe," printed by F. Pfeiffer (Marienlegenden), which differ materially in the treatment of the legend from that in the other languages. Sprenger gives a critical text of the "Jüdel," places it with the classic period of M. H. G., the 12th century (cf. Wackernagel Lit., p. 205), and makes Konrad v. Heimesfurt the author. He considers it the older version upon which the younger "Der Judenknabe" was partly based.

From Sprenger's text:

hende winden unde klagen
unt weinen was dâ wider strîf
unz nâhen ze complête zit
331. daz man dâ *tavelle* in der stat.

we note the following correction for Müller-Zarncke M. H. D. Wörterbuch, Lexer Handwörterbuch, and Weigand Deutsches Wörterbuch. Müller, Vol. III, 19 *tavelen* swv. = tafel halten, speisen (quotes v. 331 above). Lexer, II, 1410 has additional explanations of the word, among them "durch Anschlagen an eine hölzerne Tafel ein Zeichen geben (statt des Lätens)," cf. *tüvern*, Schmeller, I 587. This meaning should be taken in v. 331. On holy Friday no bell is rung in Catholic countries, but the sign to begin service is given by knocking on a wooden tablet. *Tafeln* = speisen is New-German, emend. Weigand II³ 871.

F. Pfaff supplies a Middle German fragment (240 verses in the city archives, Frankfurt a. M.) of Reinbot's Georg, to which Bartsch adds a list of the known MSS of that poem, and K. G. Andresen sends an almost exhaustive list of family names derived from *diet*, *thiuda*.

Fedor Bech "Zum Wortschatz des Chemnitzer Urkundenbuchs." From the large collection of words we note Grimm, D. W., II 426 *brueling* = frischling, wie es in den Brül (= wiese) getrieben wird; Sanders, D. W., I 228 *brueling* from *bruch* = sumpf; Bech connects it with *brûhen*, Low German *brojen* (Schiller-Lübben, I 427b). *Bechen swîn*, i. e. das zu Speck und Schinken bestimmte Schwein, incorrectly printed in Lexer's Handwörterbuch *beckenswîn* and translated by *bäckerschwein* (Nachträge, 46), cf. *bachen* in Lexer. *Derjenige*, pronoun, according to Grimm and Weigand not before the 16th century; Bech finds it in the 15th. *Durchaus*, adverb, Grimm, Wörterbuch, II 1583, not before the 16th century; Bech quotes it from the 15th. *Hern*, Grimm in W. III 52 says "es ist ein unverstand schon dem nominativ ein obliques *n* (h)ehrn, (h)ehren beizusetzen wie Bürger thut:

hierauf sprang (h)ehren Loth herbei
mit brausen und mit schnarchen."

Bech shows this usage in documents of the 15th century (cf. Sanders, I 344a). B. continues with two minor communications "Vom Eichhorn als Wildpret," and "Das wort *tinne*." The first article furnishes Alwin Schulz, the writer of "Das höfische leben zur zeit der Minnesänger," with more material to enlarge in the next edition of his work, the list of the different kinds of game used at the table of prince and knight during the middle ages. The second communication maintains his reading *tinne* = schläfe, instead of *täme* = daumen, in F. Pfeiffer's "Arzneibüchern," II 4, as defended by Sprenger. The Kornenburg fragment which Blass published in the Germania (26, 380) seems to confirm *tinne* as the proper word.

Most mediaeval epics have received for years a close and scholarly attention. This attention, however, has not been uniformly spread over the whole field; favorites like the Nibelunge nôt and Kudrun have received more than their

fair share, other less conspicuous but perhaps as much in want of elucidation have certainly received less. It has struck us as remarkable, considering the connection of the Ortnit-Wolfdietrichsage with so many epics, how small a part of the work of philologists has been devoted to it. Friedrich Neumann in a paper, "Die Entwicklung der Ortnitdichtung und der Ortnitsage," contributes a searching analysis of the poem, which gives promise that the subject will be dealt with more frequently. He concludes that the Ortnit-Wolfdietrichsage originated in the combining of two independent subjects, Ortnit the dragon-slayer being a different personage from Ortnit "der Riuze" who sails beyond the sea. Soon after the taking of Tyrus in the year 1124 a new version appears that makes Suders the capital of the enemy, and through the influence of the battles round Mons Tabor in 1217 a later poet substitutes Muntabûre for Suders, placing Alberich, heretofore of little import, as the central figure. The poet of our text mixes two versions, the older having Suders as the object of the expedition, the younger, Muntabûre. He tries to disguise the contradictions incident to this process, but does not succeed.

F. Vetter sends some minor communications, and Bartsch prints five folksongs of the XV century.

Felix Liebrecht pronounces favorably upon *Les littératures populaires de toutes les nations*: Tom I. *Littérature orale de la Haute Bretagne*, par Paul Sébillot, Paris, 1881; and Hermann Fischer reviews H. Paul's "Zur Nibelungenfrage," Halle, 1877, reprinted in Paul und Braune's *Beiträge*, Vol. III.

A folksong of the time of the Thirty Years' War (Gustav Adolf's Tod," sent by F. Pfaff, and a communication from Bartsch regarding the ἀπαξ λεγόμενα in the Nibelungen printed by B. Symons in his review in *Literaturblatt* No. 1, 1882, of B.'s *Nibelungen Wörterbuch*, close the second number.

In an announcement of W. H. Carpenter's "Grundriss der neuisländischen Grammatik," Leipzig, 1881, in the *Literaturblatt für germ. und roman. Philologie*, 1881, 2, Finnur Jonsson sharply criticised the glossary and reading matter accompanying the work (cf. *Amer. Journal of Philology*, II 5), and Byörn Magnussen Olsen now follows with an article, "Zur neuisländischen Grammatik," first in third number, in which he violently attacks the "Laut und Flexionslehre" of Carpenter's grammar. Olsen seems to us to have dealt with the book somewhat in a spirit of *revanche*. "Neben der allgemeinen (wissenschaftlichen) habe ich auch eine besondere persönliche Aufforderung, gegen dieses werk einspruch zu erheben" (des Pudels kern?). The book was written conjointly in Rykjavik, Iceland, by Olsen and Carpenter, but finally augmented and published in Germany by the latter. Olsen finds the "Flexionslehre"—the outlines of which he furnished entirely—intentionally changed and interpolated by awkward additions, and his communications were in many instances misunderstood or not understood at all by Carpenter. The sketch of the history of the language in the introduction of the work O. pronounces "aus ihrem zusammenhange losgerissene Literaturnotizen" which the author mainly copied from Vigfusson's Icelandic reader and Möbius' essay "Über die altnordische Sprache." A "Lautlehre," originally not intended for the work, was added by the author. It offers little of new matter, O. continues, but many errors, and as a rule the author plagiarises Gislason and Wimmer, whom he, however,

often misunderstands. "Sehr zu bedauern ist, dass der erste versuch, eine wirkliche neuisländische Grammatik zu schreiben, so ärmlich ausgefallen ist." But we pass from these personal compliments. That Carpenter's book needs corrections is acknowledged, we presume, by himself, and for this an unbiased, disinterested criticism is wanted. Olsen does not give it to us. With the knowledge of the importance to philology of a grammar of the living Icelandic tongue so long existing, it seems odd that we should so recently have only our first book on the subject.

A minor communication from R. Sprenger, "Alber von Regensburg und die Eneide," seems to establish the fact that Alber was acquainted with Veldecke's Eneide and the description of hell in that epic. A comparison of quoted passages from Alber's Tundalus and the Eneide shows a remarkable resemblance. We note the expression "Ein ovele nâgebûr," Eneide 3238; "Ein übel nâchgebûre," Kudrun, Strophe 650, 4. Sprenger thinks the Eneide probably prompted the saying in the Kudrun (cf. Martin, Kudrun).

The only text heretofore known of the poem "Wigamur" was the Wolfenbüttel MS of the end of the 16th century. Lately the Salzburg and Munich fragments were discovered. F. Keinz prints the Munich text and assigns it to the middle of the 13th century, not long after the writing of the original. This completes the publication of the known Wigamur MSS. The Wolfenbüttel MS was published by Büsching in the Deutsche Gedichte des Mittelalters, and the Salzburg fragments by R. M. Werner in the Zeitschrift für deutsches Alterthum, XXIII 100.

Edzardi, in an article, "Fensalir und Vegtamskviða," dissents from S. Bugge's explanation of the word *meyjar* in the Vegtkv. 12, 5-8:

hverjar 'ru þær meýjar,
er at muni gráta, etc.

Bugge finds the key in the Homeric *κοῦραι ἄλγιοι γέροντες*—the mermaids (*meyjar*) lament the death of Achilles—Baldur being Achilles. Edzardi discourages the tendency of explaining the northern sagas by Greek myths, as by such a process they are hardly ever reasoned out to any satisfactory issue. They may generally be interpreted much more simply from Germanic mythology. (We agree with E.) Edzardi makes *meyjar* to refer to Frigga's eyes, and illustrates this from the Wodan-Baldr myth. Corresponding to the passage in the Vegtkv. the Vsp. 34, 5 has:

"en Frigg um grét
i Fensolum
vá Valhallar."

Bugge explains *fensalir* = meersäle (hafsálar). Frigg i Fensolum = the nereide Thetis beneath the ocean. Edzardi here considers *fen* = teich, sumpf, and *fensalir* connected with the popular belief that certain swamps and ponds were the entrances to the abode of Holda (Frigga), the lower world.

C. M. Blass prints "Deutsche Randbemerkungen" of the 13th century, found with a Psalter at present in the city archives of Kornenburg, and Bartsch and F. Keinz supply similar matter from Erlangen and Munich libraries.

K. Nерger, "Zu Hartmann's Iwein," maintains that the reading of vv. 3473, 74:

"unz si in allenthalven streich
darzuo si vil stille sweich,"

as it is given by all MSS of that epic, might be left unaltered notwithstanding the weighty authorities that proposed emendation. Bennecke and Lachmann in their Iwein strike out the verses with the remark "als unecht zu verwerfen." Bechstein derives the word *sweich* from *swichen* = entweichen, and not from *swigen* = schweigen (cf. Amer. Journ. of Philology III 10, p. 255). The reasons for rejection or emendation were found in the counting of verses which gives to Iwein 272 X 30 verses, in the word *sweich* for *sweic*, and in the want of proper sense. The first reason has since been considered fallacious; and as to the second, Weinhold's Allem. Gram. and Paul's Untersuchungen have shown that a change of the stem *g* to *ch* in the auslaut was not an extraordinary occurrence with the countrymen of Hartmann. As regards the third reason for correcting the verses, Nерger would also leave them untouched, and gives the following explanation of Hartmann's *sweich*. It is well known that there were two kinds of cures of disease by supernatural means. One—die weisse Zauberei—employed loud prayers and exhortations; the other—die Schwarze—of a demoniac origin, used mysterious signs and knew no stricter observance than absolute silence (vil stille swigen). The question what kind of "zauberei" was employed in curing Iwein is answered by passages in Hartmann's Erec, vv. 5158–5241 (Feimurgan and the "tiuvel ir geselle").

Bartsch furnishes "Bruchstücke von Konrads Trojanerkriege" (13th and 15th century) and "Kritische Glossen zu einem unkritischen texte." This last paper answers Lichtenstein's remarks in the Zeitsch. f. d. Alth. 26, 1, on the forthcoming edition of "Eilhart" by Bartsch. (Four years ago Bartsch criticised Lichtenstein's edition.) The worthy editor of the Germania seems to have taken, so to speak, an absolute measure of Lichtenstein, and is good enough to give him a "frank and full opinion" of his ability as a philologist and critic. He hopes, however, that before the appearance of his "Eilhart" L. will have learned some more Grammar, metrik and critical method.

Vernaleken sends three "Volksagen aus Oesterreich," and R. Sprenger examines some verses of Konrad v. Fussesbrunnen's "Kindheit Iesu," which he thinks are probably imitations of passages in Veldecke's Eneide, Ulrich v. Zazikhofen's Lanzelet and Gotfried's Tristan. In a note on v. 7180 in Hartmann's Erec, Sprenger suggests a different explanation of the word *hasenwinden*, *hasenwint*, heretofore translated by "Windhund z. Jagen der Hasen." The connection with the other verses rather points to *winden* = a kind of weapon used in hunting hares, and this view seems to be supported by a passage from Gerhard v. Minden:

"ôk komet jegere al her getreket
mit *winden*, panden und mit hunden."

Cf. Schiller-Lübben M. N. D. Wörtl. V, 724.

In a note on "Hartmann's 2 Büchlein," Sprenger finds the verses 670, 71 almost reproduced by Konrad Fussesbrunnen in his "Kindheit Iesu" 1642.

From it he draws the inference that Hartmann, and not one of his later imitators, really was the writer of the "2 Bûchlein." The time which is assigned to the origin of Konrad's poem contradicts the opinion which would place the authorship of the "2 Bûchlein" to another and later writer. S. thinks the change of the word *gewant* (v. 1681) to *gelant* (Lachmann) unnecessary, since the former perfectly suits the sense of the passage.

Felix Liebrecht reviews the 3d Vol. of Eugène Rolland's *Faune populaire de la France*, Paris, 1881, and the Miscellany contains a contribution from A. Lübken, "Zum Sachsenspiegel," in which he questions the assertion of Richard Schröder (No. 9 *Literaturblatt f. germ. u. roman. Philolog.*, 1880) "der text des Oldenburger Codex sei die niederdeutsche rückübersetzung eines hochdeutschen textes."

The fourth number opens with an article of Fedor Bech, "Zu dem Pariser Tagezeiten," in which he points out the passages in the work that were directly modeled after *Frauenlob*; and Edzardi has "Kleine Beiträge zur Geschichte und Erklärung der Eddalieder." In the 23d and 24th Vols. of the *Germania* the *Gripisspá* was treated by Edzardi. A further examination of the text has convinced him that in one place—Strophes 33-44 (Hilderbrand)—it is even more incomplete and perplexing than was generally supposed. E. prints the strophes in the order which he considers the original.

E. Steffenhagen furnishes a "Kieler Bruchstück aus Berthold's von Halle Demantin." The writing proves it to be of the 14th century, and the context corresponds to the verses 1287-1438 of Bartsch's complete edition.

Ferdinand Vetter follows with some minor communications, and C. v. Herderberg prints a paper MS of the 15th century, "Die vier Temperamente."

A series of remarks and questions made by Otto Behagel, which, he says, were suggested to him by his edition of the "Heliand," will prove of great value for any future edition and the study of that work.

R. Sprenger reads Erec, 2265:

swaz aber im des gebrast
(*daz meinde* daz er was dâ gast:
sîn lant was im verre),
Artûs der herre
gap im swaz er vor sprach.

Meinen has here the meaning of to *cause*. Thus it is also used by K. v. Heimesfurt, "Urstende," 113, 41:

"daz er des êrsten genas (mit dem tode fürs erste verschont blieb)
daz meinde deiz was spâte."

A list of recent publications in the field of Germanic philology by the editor, Karl Bartsch; J. H. Gallée, of Utrecht; K. Gislason, of Copenhagen; K. F. Sodervall, of Lund, and an index to Vols. XXV-VII of the *Germania*, close the fourth number.

C. F. RADDATZ.

HERMES. 1882.

No. I.

E. Fabricius, of Strassburg, writes *The Building-contract of Delos*, C. I. G. 2266. This inscription is one of those first published by Chandler in 1763, and is now preserved in the Ashmolean Museum at Oxford. Recently there were found at Lebadea and Tegea important inscriptions dealing with kindred matters. Thus many new points of analogy have become available, and Fabricius has been prompted to discuss the Delian inscription anew. The time of the inscription may be gathered from the form of the letters and from other data; Fabricius assigns it to the latter part of the third century B. C., when Delos enjoyed autonomy.

The contract relates to the building of the floor of the temple of Apollo. The successful bidder for the contract, his bondsmen and the official witnesses to the contract are given, these latter being partly officials (the clerk of the council, the clerk of the *ιεροποιοί* and of the market-masters), and partly private persons. This contract is preceded by a general outline of the conditions of the contract *per se* with appended legal points. Any unsuccessful bidder could bring a *δίκη ψεύδους* against the actual contractor, *i. e.* accuse him of malfeasance in the execution, fraud, etc. It seems that the compensation agreed upon was given to the contractor (*εργώνης*) in two instalments, ten per cent. being held back until the entire work was concluded. The commissioners, if they failed to make their payments on the date agreed upon, were bound to pay an *επιφορά*, and the contractor likewise had to pay a fine for any tardiness. In accepting the completed work the commissioners were aided by the *ἀρχιτέκτων* who acted as their professional counsel and official expert.

C. Galland discusses interpolations in Arcadius, a late grammarian who drew largely on Herodian.

W. Dittenberger contributes notes on Greek noun-inflexion. The form *ιππέης* occurs in an Attic inscription of 394 B. C. This form D. believes to be the forerunner of *ιππῆς*, denying the claim that *ιππῆες* or *ιππέες* are the prior forms, and quoting analogous forms from inscriptions.

Mommsen discusses *Die untergegangenen Ortschaften in Latium*, basing his paper on Pliny, N. H. III 5, 68, 69. This list of communities mostly refers to places which lost their existence as civil corporations before the beginning of the imperial era; a few were razed by Sulla. Most of them were of the *Prisci Latini*. According to Mommsen, Pliny's information came from the old Roman *Annales*, but not directly; probably he derived it through Varro's *Antiquitates humanae*. The list as edited by Mommsen includes Ameriola, Amitinum, Antemnae, Caenina, Cameria, Collatia, Corniculum, Crustumium, Ficana, Medullium, Politorium, Pometium, Satricum, Scaptia, Tellena, Tifata.

Hinrichs: *The Episode of Chryseis in Homer*. The author of this somewhat diffuse paper is of opinion that modern Homer-criticism is unduly barren, and his present effort is to relieve this unproductiveness. According to Hinrichs, the criticism of artistic and chronological points has run its complete course. Much, however, he thinks may still be done by verbal analysis. The return of Chryseis in A, according to Hinrichs, is the work of a wretched "Flickmeister."

This wooden person went to work in a manner worthy of a lazy and mechanical schoolboy; culling a phrase here and two words there, a couple of lines plundered from γ , some phrases and general situations filched outright from the hymn to the Pythian Apollo, also from β , ϑ , τ , and from more than a dozen different books of the Iliad. Hinrichs professes himself a disciple of Lachmann. That critic, indeed, considered this episode as "sehr geschickt," and "an sich vortrefflich," but Lachmann left much laborious detail to later workers. The whole paper seems to the reporter nebulous and unsatisfactory.

E. Petersen (Prague): Der Streit der Goetter (Athena and Poseidon) um Athen, discusses anew the St. Petersburg vase, and pronounces and explains his dissent from Robert's interpretation of it (Hermes, 1881, p. 60 sqq.).

C. Robert: Die angebliche Pyrrhosbüste der Uffizien und die iconographischen Publicationen des 16ten Jahrhunderts. In this archaeological discussion Robert produces some interesting notes which throw considerable light upon the later renaissance in Italy. The enthusiastic desire to identify portrait busts, Hermae, etc., with great men of old led to much falsification of inscriptions on the part of connoisseurs, collectors, authors and publishers. This became evident by inconsistency in successive publications of the same art-objects, by gross blunders of the falsifiers, and by covert admissions of authors and publishers. The Anthology very generally served as the source from which were drawn the epigrams put on bases.

F. Blass: Neue Papyrusfragmente im Aegyptischen Museum zu Berlin. B. publishes and comments upon the second of these Greek papyri found in the Fayûm. It is exceedingly fragmentary; the date is of the V century B. C. It contains four articles, all of which pertain to and explain the text of Demosthenes contra Aristocratem, *e. g.* on Miltokythes, the Spartan mora, ὁ κἀρωθεν νόμος. Harpocration, as Blass shows by parallel quotation, contains the gist and often the words of these alphabetical scholia, but much more briefly abstracted. Blass makes some sensible suggestions as to the probable history and the successive abstraction and condensation of scholia, as in the present case. The probable fountainhead was a regular commentary rather than Atticist collections.

In the Miscellen there occur notes by H. Giske, Zu den Chiliaden des Tzetzes; Th. Mommsen, Zu Ammian; A. Gemoll, Emendationen zu der Hyginischen Lagerbeschreibung; F. Gustafson, ad Ciceronis Tusculanas Disputationes conjecturae XII; Ed. Woelfflin, Satura Critica.

No. II.

P. Pulch, of Strassburg, prints an interesting study, Zu Eudocia, proving that the famous *Violarium* (Ἰωνία) of the learned Byzantine Empress (flor. circa 1070 A. D.) is really a compilation made by Constantinus Palaeopappa, a Cretan monk, who had been an inmate of a monastery on Mt. Athos. He and other Greek calligraphers and copyists of that time found generous employment at Paris in the time of Henry II, husband of Catherine of Medicis, and of the Cardinal of Lorraine, also a distinguished patron of such men. The paper is an interesting contribution to the history of classic philology in the XVI century. [See A. J. P. III 489.]

R. Foerster (Kiel): Achilles and Polyxena, two unedited declamations of Choricus. Choricus was a noted professor of rhetoric and literature in the age of Justinian.¹ The two pieces edited by Foerster are from a MS of the National Library of Madrid. Foerster edits the text with many emendations; these, however, are generally very palpable, as the copyist of the MS appears to have been very ignorant of Greek. Each declamation is preceded by an hypothesis and *θεωρία* which betoken the practical teacher of rhetoric.

Choricus appears to have been thoroughly imbued with Demosthenes, and he maintains very pure Atticism in construction and vocabulary; a few phrases are direct reminiscences, *e. g.* p. 212, l. 22 *συγκεκροτημένος τὰ τοῦ πολέμου* (from Dem. XXIII 3). In poetical phrases he rarely indulges, *e. g.* *φλόγα προσάγειν*, p. 212, l. 25; *ἐπὶ γῆραος οὐδῶ*, p. 231, l. 30. Certain phrases are derived from Platonic and Aristotelian vocabulary, as *ψυχαγωγεῖν*, *συλλογίζεσθαι*. The argument is wrought out with great clearness and with as much earnestness as such a subject-matter would admit. Choricus exhibits an excellent faculty of psychological analysis, although this is sometimes brought forward too didactically, not in the proper dramatic manner.

I. Schmidt (Halle) discusses the MSS of Serenus Sammonicus.

Gardthausen: Ursicinus and the Inscription of Dojan. This inscription (edited by Mommsen, C. I. L. III 6159) records a victory over the Goths; spelling and antiquarian detail point to the IV century A. D. Gardthausen in the present paper endeavors to specify dates and persons, assigning the inscription to Constantinus II, son of Constantine the Great.

Vahlen: *Varia*; Exegetical notes on passages in Cicero, Ovid, Vergil, Seneca, Plautus. This distinguished successor of Haupt and Lachmann shows a strong vein of conservatism in his dealing with texts. He hesitates to leap from the notation of difficulty to the utterance of condemnation. He is careful to exhaust the ranges of parallel literature, and he often uses the mild remedy of a change in punctuation. His Latin, generally limpid and dispassionate, becomes somewhat ruffled when dealing with that band of younger Ritschelians who are continuing their master's edition of Plautus. He imputes to them violent and subjective practices and returns some of their strictures with interest. Schoell, in bracketing Plaut. Trucul. I 1, 60, had remarked of Vahlen "novo igitur exemplo V. ostendit audaciorem esse neminem quam criticum iusto timidiorem." To which V. replies "Poteram respondere ut illa: ὡς σοφός. Sed nolo cavillari hominem quem auguror paullatim ultro desitutum mirari si multa quae ipsi nunc sunt certissima, ab aliis aut falsa habebuntur, aut dubia admodum." On p. 268 V. says "admonemur, ne, si qua in veterum libris a nostra dicendi consuetudine abhorrent, ne veteribus quidem potuisse placere confidentius affirmemus." Vahlen's method while avoiding specious brilliancy would seem to be more apt to make thorough scholars.

K. Lincke (Jena): *Zur Xenophonkritik*. This elaborate and somewhat rambling paper sets forth the theory that many passages in Xenophon's *Anabasis* are not late interpolations, but additions, probably, by the first editor or some one near to Xenophon. Of course there are additions of grosser and quite

¹ See American Journal of Philology, I 79.

palpable sort, as the summaries at the beginning of books II, III, IV, V and VII, also the general summary of tribes and nations at the end of the *Anabasis*. In many of his bracketings, Lincke reaffirms the critical judgment of Cobet, Schenkel, Krueger and others. A typical addition of such early addition, according to L., is the note on Apollo and Marsyas, *Anab.* I 2, 8. Here the style, too, serves L. as a handle for his condemnation, there being a series of monotonous, poorly connected data. L. also objects to the use of σοφία for musical skill. Lincke's paper may prove very handy for its presentation of a conspectus of doubtful or difficult passages in the *Anabasis*. At the same time one cannot help feeling that the critic cast around for more material after the façade of his critical stricture was completed. This is the impression produced by his strictures on III 4, 7 sqq. (Larisa and Mespila); where slight difficulties are stretched considerably, and where his comments on points of detail seem to have been biased in advance by his general theory. In conclusion, L. applies his theory of *early additions* to the *Cynegeticus*.¹ That book, according to Lincke, was not indeed written by Xenophon when a young man, but edited after his death by a young man with a young man's additions, such as the heavy mythological embellishment of the preface, etc.

The minor papers of this number are notes, by Hirzel on the Democritean Diotimos; by P. Stengel on Libations of wine in connection with burnt offerings; by A. Piccolomini, *De loco quodam vitae Euripidis*; and Th. Kock, A reply to van Herwerden on *Aristoph. Ran.* 548.

E. G. SIHLER.

ZEITSCHRIFT DER DEUTSCHEN MORGENLÄNDISCHEN GESELLSCHAFT. 1882. III and IV Heft.

1. In continuation of Flügel's account of 'Abd al-ghānī's third and first journeys (*Zeitschrift*, 16, 651), J. Gildemeister gives extracts from his second journey, from Damascus to Jerusalem, made A. D. 1690. The interest of these travels lies in the geographical notices, and in the description of Moslem sacred places in and around Jerusalem. The author travelled in state, with a retinue of pupils, and was everywhere, as a great scholar, honorably received, and all means of obtaining information were placed at his disposal. His report gives a curious picture of the Moslem religious ideas of the day, which, however, seem not to differ greatly from what we now find in the East. With the Arabic devotion to names 'Abd al-ghānī begins his work with a list of the names of Jerusalem, eighteen in number, most of them from the Hebrew, with various distortions of form, as Babush for Yabus (Jebus), though this may be a scribal error. Perhaps the most valuable historical statement of the book is the account of the Haram (described by other Moslem pilgrims also), with its mosques, domes, and graves of the patriarchs. The existence of two rival graves of Moses occasions our traveller some embarrassment, but he takes refuge in the reflection that bodies are sometimes removed from one grave to another. The poetry scattered freely through the book Gildemeister pronounces to be generally poor.

¹ See *American Journal of Philology*, III 199.

2. Professor Bacher's article on "Abulwalid Ibn Janāḥ and the modern Hebrew poetry," cites a number of poetical quotations from Ibn Janāḥ's Hebrew-Arabic Dictionary, giving the names of the poets (these are of two classes, the liturgical or Paritanim or Piut-poets (ποίηται), and the non-liturgical), and illustrating the new forms and meanings of words which they employ. In this late poetry is found not only a considerable widening in the significations of biblical words, but also free departure from the masoretic rules of punctuation, and Abulwalid finds occasion to go into discussions like those of which the Arabic grammarians are so fond; thus there is a defence of נָעַל and קָרַב as stat. const. of נָעַל and קָרַב, and of the preposition עָבֹר, used instead of the fuller form בְּעָבֹר. Among words used in non-biblical senses may be mentioned חֵן (found in Old Testament only in Job xli 4, in sense of "grace, comeliness"), which the Piut-poets employ in the sense "discourse," taking it from דְּרַחֲמֵן, first as "prayer," and then as speech in general. For another biblical hapaxlegomenon, שָׁנֵאן (Ps. lxxviii 18), properly "repetition," we find in the Paitanim the rendering that the King James English Version has adopted, "angels," which was, apparently, the generally accepted signification among the later Jews (so Saadia and the Targum). The old versions all stumble at the word, twisting it in various ways, and the Jewish interpreters seem to have taken the signification "angels" by a simple *tour de force* from the context. Bacher accompanies his citations with instructive critical remarks and references to Jewish authorities.

3. In reply to Dr. Nager's article (see the Journal II 7) Dr. Fürst defends his interpretation of *Azkara* and *Shem Hammephorash* ("the distinctly pronounced tetragrammaton") by an examination of various passages of the Talmud in which they occur. There is no doubt that the verb פָּרַשׁ (in Pael) is used in the sense of "distinctly or expressly pronouncing the divine name," and that the prohibition of such pronunciation extended only to the name יהוה. In regard to אִזְכָּרָה the question is whether it is used of other divine names than the tetragrammaton, to which Dr. Fürst's answer (well supported by citations) is that in later times when the designation *Shem Hammephorash* had been generally adopted, and the original signification of *Azkara* had been forgotten, the latter was used of the other divine names, which are included in the category כִּנּוּיִּים "cognomina."

4. Franz Praetorius expresses the opinion that the Šafa alphabet contains at least 25 letters, instead of 23, as Halévy holds (Journ. As., VII series, vols. 10 and 17), but thinks it impossible to speak with confidence on this point till the inscriptions have been more certainly deciphered.

Book Notices. 1. Nöldeke's highly commendatory reviews of Socin's Texts of modern Aramaic dialects from Urmia to Mosul, and of W. Wright's edition of the Chronicle of Joshua the Stylite are characterized by his usual richness of text-critical, grammatical, historical, and geographical remark, too detailed to be given here; it may be mentioned that he prefers the spelling Ōrhāi (later Ūrhōi) to Wright's Ōrhāi or Ūrhāi (Edessa). Having better material at his disposal, Wright has been able to produce a correcter edition of Joshua than Martin, and so to make accessible the contents of this valuable chronicle,

whose date is given by Wright and Nöldeke as A. D. 507. 2. Kautzsch gives a detailed statement of the contents of Stade's *Zeitschrift für die alttestamentliche Wissenschaft* (1881 and first number of 1882), article by article, with critical characterization of the positions of the various contributors. His verdict is in general favorable, but he expresses the hope that the new Journal will not become merely the mouthpiece of one critical school (namely, that represented by Reuss, Graf, Kuenen, Wellhausen, and others), but will number among its contributors defenders of all existing tendencies. Among the most noteworthy of the articles which have up to this time appeared in the *Zeitschrift* are Stade's on Zech. ix-xiv, which prophecy he assigns to the Greek period, and Giesebrecht's examination of the language of the Hexateuch in order to determine whether the linguistic phenomena permit or forbid the assignment of the Priest-Codex or Elohist recension to the period B. C. 620-450. His lexicographical result (herein he continues Ryssel's work) is as follows: Of the characteristic words of the PC there are found in the literature up to B. C. 700 at most 28, of which 12 are in Isaiah, Micah, Hosea, Amos; while there are 58 in Jeremiah and Lamentations, 29 in Deuteronomy, 72 in the exilic Isaiah, 192 in Ezekiel, over 80 in Job and Proverbs, 229 in Esther, Ezra, Nehemiah, Chronicles, 11 in Judges, 6 in Samuel, 31 in Kings. This striking result is entitled to careful attention from the opponents of the post-exilic date of the Elohist. 3. Nestle has notices of Hoffmann's edition of the Syrian account of Julian the Apostate, and of Baethgen's edition and translation of the Syriac Grammar of Mar Elias of Tirhan. The latter is the only printed original East-Syrian grammar, and also the oldest surviving work that can make pretensions to the name of a Syriac grammar, its date being about A. D. 1000. 4. The Chinese grammar of Georg von der Gabelentz (Leipzig, 1881) is declared by Grube to be an epoch-making book. In ZDMG 32, 601 v. d. Gabelentz described what he thought to be the proper way of treating Chinese grammar, and his present work is intended to be an illustration of the principles there laid down. For the first time, says Grube, we here have the study of the Chinese language emancipated from the methods of the Latin grammars, and put on the basis of an examination of the facts themselves. The author calls in question (as Lepsius had already done in 1861) the original monosyllabism of the Chinese tongue, and the reviewer adds that he himself has shown the impossibility of this supposed original monosyllabism by a comparison between the Chinese and the Tibetan and related languages, in his essay, *Die sprachgeschichtliche Stellung des Chinesischen*, Leipzig, 1881. 5. The contents of Ignatius Goldziher's work on Islam (unfortunately written in Hungarian, Budapest, 1881) are described by Bacher as being "rich and interesting." The six chapters treat of: The religion of the desert and of Islam; The traditions of Islam; Saint-worship, and the remains of older religions; Buildings, in connection with the Muhammedan conception of the world; Muhammedan University life; Incorrect opinions respecting Islam. Goldziher takes the field against Sprenger and others, and maintains that Islam is not in any sense a development of the Arabian national thought, but is, on the contrary, a complete denial and reversal of all the habits and tendencies of the people. This is doubtless an exaggeration of one side of the phenomenon, but has its rights over against similar exaggerations of the other side.

At the request of the editors of the *Zeitschrift*, Dr. H. Guthe describes his work on the Siloam inscription, and gives a Hebrew transliteration, German translation, and commentary, with a photograph of his gypsum cast. The transliteration is as follows (the stars represent illegible letters, those in parenthesis-marks are not quite certain, those in square brackets are supplied):

- 1 ** הנקבה וזה היה רכר הנקבה בעור
2 הגרון אש אל רעו ובעור שלש אמת להג) ***** קל (א)ש ק
3 (ר)א אל רעו כי הית זרה בצר מימן (ו)מ) *** (אל) ובים ה
4 נקבה הכו החצבם אש לקרת רעו גרון על (ג)רון וילכו
5 המים מן המוצא אל הברכה במאתים (ו)אלף אמה (ו)מא
6 ת אמה היה (ג)כה הצר) על ראש החצב(ם]

The translation of Professor E. Kautzsch, slightly modified by Guthe, is as follows: 1. "The cut [is finished]. And this was the manner of the cut. While [they were] still [swinging] 2. the picks one toward the other, and while there were yet three cubits to [cut through], [there was heard] the voice of one who cal- 3. led to another, for there was a cleft (?) in the rock on (or from) the south [and on (or from) the north]. And on the day of the 4. cut the masons struck one toward the other, pick against pick, and there came 5. the water from the spring to the pool 1200 cubits, and two hun- 6. dred cubits was the height of the rock above the heads of the masons." The readings of the photograph are in some cases nearly or quite illegible where Dr. Guthe expresses no doubt; in such cases he must have got his idea of the reading from the inscription itself, and failed to make a complete transfer on his cast. Nevertheless, we are under great obligation to him for the perseverance and skill which he has shown in procuring and publishing the cast. The only new words in the inscription are נקבה and זרה, of which the former is clear (from נקב "to pierce"). No satisfactory sense has been found for זרה. Of known Semitic stems we could think only of זר, which in Hebrew signifies only "to boil, be proud," but in Arabic means to "increase, be over and above, remain," whence the noun would signify "a remaining part, or an attached part," which, however, yields no clear sense. Guthe and others assume the sense "cleft, fissure," from what they think the necessity of the connection, but there seems to be no etymological basis for this signification, and it must remain at best doubtful. The grounds for the assumption of the bracketed words will appear from the connection. The letters of the inscription are nearly identical in form with those of the Mesha-stone (9th century B. C.) except the Aleph, which is like the Aleph of the Eshmunazar-inscription (4th century B. C.). From a comparison with II Chron. xxxii 30, Guthe (regarding Isa. viii 6 as not decisive) assigns the tunnel and the inscription to the time of Hezekiah, latter part of 8th century B. C.

Other articles in this number are: On the Mānava-Gṛhya-Sūtra, by P. v. Bradke, proof that the Mānava belongs to the Māitrāyaṇī-Çākhā, with remark that the transition from the Vedic prose to the classic metrical prose was made through the epic poetry; Extract from the poems of the Tatar sage Nāşir Chusran, by Prof. Dr. Hermann Ethé; Specimens from various Indian poets, by Theodor Aufrecht; On the Ashi-Yasht of the Avesta, by Chr. Bartholomae; On Avestan text-criticism, by F. Spiegel; Avestan studies, by C. de Harlez; and several short articles.

C. H. Toy.

JOURNAL ASIATIQUE. 1882.

No. 2. August-September (No. 1 contains the Annual Report, by Renan).

1. Senart continues his studies of the inscriptions of Piyadasi (see the Journal, No. 7).

2. The Sanskrit inscriptions, collected in Camboge by M. Aymonier, Representative of the French Protectorate, and sent by him to the Asiatic Society at Paris, were submitted for examination to a committee consisting of Messrs. Barth, Bergaigne and Senart, who give a detailed report of the contents, and warmly commend Aymonier's work. Bergaigne points out the evidence furnished by the inscriptions of the missionary activity of Brahmanism, which, indeed, prepared the way for Buddhism; Brahmanism, says Barth elsewhere, failed to penetrate anterior Asia not from lack of the proselyting spirit, but by reason of the barriers opposed to its progress by more compact religions, vigorous political organizations, and national culture superior to its own. Barth adds annotated translations of two of the inscriptions (see the Journal, No. 11).

3. M. Arthur Amiaud gives an improved translation of the non-Semitic inscription of Hammurabi (Cuneiform Ins. of West. Asia, 4, 15, 1) for the purpose of putting alongside of it an Assyrian translation which he has taken almost wholly from the Semitic inscriptions of the same king Hammurabi, and showing the striking correspondence that exists between the composition of the former and that of the latter. He declares that there is a similar correspondence in all the non-Semitic inscriptions of the five first plates of the W. A. I. He concludes that if the authors of the inscriptions wrote in two different languages, it seems at least that they thought in only one. He says nothing further on this point, but apparently reserves his more explicit statement for another article.

Book Notices. There are highly commendatory notices of Jäschke's Tibetan-English Dictionary (London, 1881) by Feer, and of de Harlez's Pehlvi Manual (Paris, 1880) by de Dillon. Siouffi, French vice-consul at Mosul, communicates some very curious creation-legends of the Yezidis, together with an account of their present customs.

No. 3 of the Journal, containing the index to the Seventh Series, has not yet appeared.

1883. No. 1, January (beginning of the Eighth Series).

1. Maspero gives text and translation of the love-songs of the Turin papyrus, and the papyrus Harris 500, and points out certain resemblances between them and the Old Testament Song of Songs.

2. Clément Huart, Interpreter of the French Embassy at Constantinople, gives a long list of Arabic words and expressions peculiar to the Damascus dialect, supplementing the Arabic-French dictionary of Cuche, and Dozy's Supplement to Arabic dictionaries. The strange forms *'arjinī*, *warjinī*, *farjinī*, all meaning "cause me to see," he derives from the ordinary stem *ra'ā* "to see," in which the middle radical Alif has been changed into *j*, with prefixing of the conjunctions *wa* and *fa*.

C. H. Toy.

MNEMOSYNE, Vol X, Part III.

The first article (pp. 225-38) of this number is by Cobet, containing criticisms on Appian, *de bellis civilibus*. He places first in parallel columns a passage which occurs substantially in the same terms in IV 58 and III 57; "hunc locum ex nescio quo historico descriptum quum semel Appianus apposuisset eius rei immemor eundem iterum in rem suam convertit." Cobet shows that errors have been introduced into the later quotation which do not occur in the earlier. V 92, 28: ἐπενόει τοὺς ὀπλίτας ὀλκάσιν ἐπιβήσας ἐς Σικελίαν περαιοῖν. "Debebat ἐπιβιβάσας scribere et ἐπέβησα Homero et Herodoto relinquere. Sed apud sequiores πάντα ῥήματα ἦν ὁμοῦ neque in quoquam erat ὁ νοῦς ὁ διακοσμήσων." V 101, 4: τοῖς προφύλαξι τῶν ναυπηγουμένων Καίσαρι νεῶν οἷα σκηπτὸς ἈΦΑΝΩΣ ἐμπίπτων, "ecquid absurdus est quam σκηπτὸς ἀφανὼς ἐμπίπτων, ut apud iocosum poetam in rebus manifesto absurdis ludentem: *le tonnerre en silence Par des éclairs obscurs annonçait sa présence?* Exime duas literulas et erit ἈΦΝΩ,¹ quod Appianus passim usurpat pro *repente, necopinato*." IV 94, 33: post caedem Caesaris αὐτίκα ἡ βουλὴ τὴν κοινὴν γνώμην ἐξέφηνε σαφῶς μὲν ὅτε καὶ γέρα τυραννοκτονικὰ ἐψηφίζοντο εἶναι, ἐπισχόντος δὲ αὐτοῦς Ἀντωνίου καθ' ὑπόκρισιν ἈΤΑΡΑΞΙΑΣ. "Senatus interfecto Caesaris praemia decernere volebat, sed retinuit eos Antonius. Retinuit autem καθ' ὑπόκρισιν ἀταραξίας. Quid tandem est καθ' ὑπόκρισιν ἀταραξίας? Nihil prorsus. Interpres: *sed revocati ab eo consilio patres per Antonium astute dissimulantem quas excitaturus esset turbas*. Vides interpretem quoque astute dissimulare se ea verba non intelligere.² Lenissima emendatio claram lucem afferet. Rescribe καθ' ὑπόκρισιν ἈΠΡΑΞΙΑΣ. Ἀπραξία est *iustitium* quum neque cum populo neque cum patribus quidquam recte agi posset eoque prae-textu usus Antonius prohibuit quo minus patres quidquam decernerent." He shows however that Appian's usual word for *iustitium* is ἀργία: *iustitium indicere* = ἀργίας προγράφειν: *iustitium remittere* = ἀργίας ἀναρπῆν or βαστάζειν. Cobet closes these notes with some general remarks on the style of Appian. "Utitur Appianus oratione simplici et incompta et perspicua ad intelligendum. Totus in rebus verba eadem de iisdem solet ponere inops magis quam copiosus et minime sectatur τὴν καλλιπέειαν multorum naufragiis infamem scopulum . . . Non vitat vitiosam vulgi συνήθειαν et horum fere incuriosus ac negligens nonnumquam in mirificos errores se induit. Auxerat, ut eruditi omnes, dicendi copiam assidua lectione Veterum, et saepe pellucet Thucydidis dictio, saepe Demosthenis, saepissime omnium Herodotea. Non putide haec et pueriliter imitatur sed quae longo usu imbiberat utitur pro suis." This statement is supported by many citations which establish each point; and he says at the end: "Complura alia de genere hoc ex Herodoti et Appiani comparatione colligi possunt, quam rem iuniorum ingenio et industriae commendo."

On page 239, with the heading 'ΑΔΙΑΝΟΗΤΑ Latina et Gallica,' Cobet gives

¹ The mistake would be mediated by the late and rare form ΑΦΝΩΣ.—B. L. G.

² The passage occurs in a speech of Cassius where he narrates the events that followed upon Caesar's death. For my part, I cannot see the difficulty of καθ' ὑπόκρισιν ἀταραξίας in view of Plutarch's words (Vit. Anton. c. 14): ἐξήει τῆς βουλῆς λαμπρότατος ἀνδρώπων ὁ Ἀντώνιος ἀνρηγκέιναι δοκῶν ἐμφύλιον πόλεμον καὶ πράγμασι δυσκολίας ἔχουσι καὶ ταραχὰς οὐ τὰς τυχοῦσας ἐμφρονέστατα κεχρησθαι καὶ πολιτικώτατα. A. pretended to be opposed to all agitation. Besides, how can ὑπόκρισις be used as equivalent to σκήψις or πρόφασις?—B. L. G.

M. Bréal's interpretation 'antiquissimae, ut perhibent, inscriptionis,' cited in this Journal, Vol. III, p. 107; and exclaims: "ὦ Ζεῦ βασιλεῦ, τῆς λεπτότητος τῶν φρενῶν. Quam suaviter in sinu ridebit scurra Romanus, qui hanc nugatorium inscriptionem ioci causa de suo commentus est." For Cobet's own view of it see p. 246 of the same volume.

The next article (pp. 240-46) is by J. Van Der Vliet, on passages in the letters of Seneca. His suggestions are often ingenious and probable; but some of the changes proposed have been already adopted by the Editors; e.g. that on Ep. 50, §2.

Next, K. G. P. Schwartz (pp. 247-50) gives notes 'ad Platonem et Lucianum.' The only passage of Plato touched upon is Phaed. 62a, which he proposes to emend by inserting the spaced words: καὶ οὐδέποτε τυγχάνει τῷ ἀνθρώπῳ, ὥσπερ καὶ ἄλλα, ἔστιν ὅτε καὶ οἷς βέλτιον ὂν ἄλλως τε καὶ οἷς βέλτιον τεθνάναι ἢ ζῆν. This would suit the sense very well, but is unnecessary if we understand the preceding τοῦτο to mean τὸ μὴ θεμιτὸν εἶναι αὐτὸν ἑαυτὸν ἀποκτείνῃν, and not with M. Schwartz simply τὸ αὐτὸν ἑαυτὸν ἀποκτείνῃν.

We have then emendations proposed for some thirty passages of Lucian. Only one can be quoted. "*Bis Accusatus* c. 3, τοσαύτας ἐδώλυνε δίκας φυλάττομεν . . . καὶ μάλιστα ὁπόσαι τὰς ἐπιστήμας καὶ τέχνας πρὸς ἀνθρώπους τιναὶ ξυνέστησαν. Sine dubio corrigendum τὰς ἐπιστήμας καὶ τέχναις. Notissima locutio est δίκη μοι συνίσταται πρὸς τινα."

Cobet next (pp. 251-57) contributes some notes on Galen. He illustrates the condition of his MSS by comparing quotations made by Galen from Hdt. II 36 and Ar. Av. 471 with the texts as they appear in our editions. Galen's own rule as to style is quoted; VI, p. 579: ἐγὼ μὲν οὖν τοῖς ὀνόμασιν οὕτως ἐχρησάμην ὥς οἱ νῦν ἄνθρωποι χρῶνται, βέλτιον ἡγοῦμενος εἶναι διδάξαι σαφῶς τὰ πράγματα τοῦ παλαιῶς ἀττικίζειν. "Athenienses Galeni aetate utebantur τῇ κοινῇ τῶν Ἑλλήνων συνηθείᾳ . . . sed in tali re παλαιῶς addi non solet, quia omnes sciebant ἀττικίζειν non nisi de vetere lingua Attica usurpari." A passage in VII, p. 291, is quoted to justify the substitution of κἀδηφαγίας for καὶ γυμνασίων in Ar. Nub. 417, "Absurdum est ἀπέχει γυμνασίων, in quo nulla inest luxuriae notio. Apud Digenem Laertium, ubi hic versus laudatur, pro γυμνασίων legitur ἀδηφαγίας, quod unice verum esse et Aristophani reddendum ratio demonstrat et confirmat locus Galeni." Several passages are quoted simply for their interest: e.g. VIII, p. 148: πυθόμενος τῷ Ἀρχιγένοι τι γεγράφθαι βιβλίον ἐνθα διδάσκει μνήμης βεβλαμμένης ἀνάκτησιν, εὐθέως περιῆλθον ἀπάσας μὲν τὰς βιβλιοθήκας, ἀπαντας δὲ τοὺς βιβλιοπώλας, ἀπαντας δὲ οὓς ἤδεν ἰατροὺς ἐσπονδακτάς περὶ τὰ συγγράμματα τάνδρὸς εὑπορῆσαι τοῦ βιβλίου προσηρημένους. VIII, p. 151: ὥς ἐγωγε καὶ νῦν θεῶμαι ΚΑΤΑ τὰς τῶν νοσοῦντων ἐπισκέψεις τοὺς ἰατροὺς ἐν τῇ κοινολογίᾳ πνιθανομένους ἀλλήλων κατὰ τίνα λόγον τόδε βοήθημα πρὸ τοῦδε συνεβούλευσαν. "Optima haec erat et utilissima medicorum consuetudo, sed vitium est in verbis: κατὰ τὰς τῶν νοσοῦντων ἐπισκέψεις. Interpres vertit ut debuit, *inter visitandum aegros*. Sed quicunque sentit haec *coram aegrotantibus* agi non potuisse rescribito MERÀ τὰς τῶν νοσοῦντων ἐπισκέψεις." "Est operae pretium videre quam alto supercilio Graeci linguas barbarorum contemnerent. Paullo ante Galenus scribit (VIII, p. 585) ἐὰν προσέχῃς τὸν νοῦν ταῖς φωναῖς τῶν βαρβάρων διαλέκτων εἰση σαφῶς τὰς μὲν ταῖς τῶν σῶν, τὰς δὲ ταῖς τῶν βατράχων ἢ κολοιῶν ἢ κοράκων ἐοικυίας. Eiusdem-

modi est quod Julianus scribit de poetis trans Rhenum pag. 337d: ἑθεασάμην . . . τοὺς ὑπὲρ τὸν Ῥήνον βαρβάρους ἄγρια μέλη λέξει πεποιημένα παραπλησίᾳ τοῖς κρωγμοῖς τῶν τραχὺ βοῶντων ὀρνίθων ἔδοντας."

In the next article (pp. 258-89) Naber continues his *Euripidea*. In Ion. 54, he proposes θριγκοφύλακα for χρυσοφύλακα, which he supports by comparing vv. 315 and 414, explaining θριγκός to be 'deauratum saeptum saxis structum quo, adytum templi circumclusum erat.' In 304 he writes Φοῖβω ζυγῆναι for μεγῆναι, asserting that in the Tragic dialect the rule of ordinary Attic speech must hold by which μέγνυται ὁ ἄνθρωπος τῇ γυναικί, οὐχ ἡ γυνὴ τῷ ἀνδρὶ, though he is aware that the distinction is unknown to Homer, Hesiod, or Pindar. In 506, οὐτ' ἐπὶ κερκίσιν οὔτε λόγους φάτιν αἶον, he feels the difficulty that has troubled others, that λόγους expresses the time of gossip too vaguely to be properly contrasted with κερκίσιν. 'Quodnam praeterea tempus habent virgines, quod amicis confabulationibus dare possunt? Dum lavandria, uti arbitror, siccant ad solem. Vide modo Hippol. 125. Hinc conieci οὐτ' ἐπὶ κερκίσιν οὔτε πλυνοῖς.' In Helen. 262, ἐξαλειφθεῖς ὡς ἀγάλμα is objected to as unintelligible. 'Solentne deorum signa ἐξαλειφθῆναι? Cur? Quando? Quomodo?'¹ Then taking a hint from Plat. Sympos. 215b where Alcibiades compares Socrates to one of those Sileni, οἱ δίχα διοικθέντες φαίνονται ἐνδοθεν ἀγάλματα' ἔχοντες θεῶν, he conjectures that Helen said

εἴθ' ἐξανοιχθεῖς ὡς ἀγαλμ', αἴθις πάλιν
αἰσχιον εἶδος ἀντὶ τοῦ καλοῦ ἵλαβον.

'Quid mirum, si Euripides incidit in eandem comparisonem, in quam postea Plato? Quamquam Plato melius, nam turpis Silenus interdum Helenam intus celat, sed formosa Helena non celat Silenum.' He further argues that ἀγάλμα means always a sculptured figure, not a picture. On Hel. 1590 he writes: 'Nondum expedire potuerunt viri docti πάλιν πλέωμεν Ναξίαν' κέλενε σύ. Codex habet ἄξιαν, cui superscriptum να, unde Ναξίαν in Aldinum fluxit. Scribit Hermannus ἄξιῳ, Paleius τί νῦν πλέωμεν Ναυπλίαν, Badhamus ἀντίαν: sed haec desperantium sunt conamina. Emendandum: πάλιν πλέωμεν· δεξιὰν κέλενε σύ. Tantulum vitium omnes latuisse! Nec potero fortasse excitare locum ubi hoc ipsum legitur δεξιὰν κελεῖναι, sed quum Aristophanes dixerit: ὁρθὴν κελεύεις ἢ τὸ δένδρον φαίνεται, nihil est cur dubitemus an recte dicatur δεξιὰν κελεῖναι.' In writing on the Bacchae he speaks of the edition of Wecklein as very useful to him 'unde praeterea in mea librorum penuria cognoscere potui quid viri docti ad hanc tragoediam explanandam attulissent.' Among other books Wecklein refers to a dissertation by Middendorf, 'qui in observationibus ad hanc fabulam sex paginis refutavit quae Boeckhius, quo erat ingenii acumine, persecutus fuerat per paginas triginta,' in regard to the question whether the younger Euripides had any hand in bringing about the existing condition of this play. 'Equidem Middendorffio careo uti et aliis quam plurimis, quos minime contemno, sed quos comparare mihi non potui, quia bibliotheca Amstelodamensis libris Latinis et Graecis hand ita opipare instructa est, neque sacculus meus sufficit ad omnia. Leidensis bibliotheca mihi quaedam commodavit: etiam Herwerdeno nonnulla debeo; sed Middendorffius in hanc urbem palorum et

¹ Has the critic forgotten Kallimachos, Lavacr. Palladis, 13? See Müller, Archaeol. der Kunst, p. 69.—B. L. G.

paludum nondum advolavit.' Naber's observations on this play and on the Iph. T., Iph. Aul. and Cyclops are always entertaining and sometimes helpful. But he is occasionally very perverse. On Bacch. 259: εἰ μή σε γῆρας πολὺν ἐξεργήβετο | καθῆσ' ἂν ἐν βάκχαισι δέσμιος μέσαις, he says 'praefero optativum καθῆσ' ἂν. Sederes, non sedisses;' and he argues, Bacch. 1065, that for κατήγεν, ἤγεν, ἤγεν εἰς μέλαν πέδον we should read κατήγεν ἡρέμ' ἡρέμ'.

The next article (pp. 290-94) contains Platonic notes by Dr. Badham, chiefly on the Philebus; but none of them are available for this notice.

J. J. Cornelissen (pp. 295-300) follows with notes on Petronius. One or two of them may be quoted. §4, 'parentes obiurgatione digni sunt, qui nolunt liberos suos severa lege perficere. Legendum est *producere*, i. e. educare ut est apud Plaut. Asin. III 1, 40; Ter. Adelph. III 2, 16; Juvenal, Sat. 14, 228.' §80, 'fulminatus hac pronuntiatione, sic ut eram, sine gladio in lectulum decidi, et attulissem mihi damnatas [Buech. damnatus] manus, si non inimici victoriae invidissem. Absurde legitur *sine gladio*, nam neque si sine gladio in lectulum Encolpius decidisset, mortis sibi conciscendae consilium iniisset et supra narravit, postquam Ascyrtos gladium parricidali manu strinxerit, se idem fecisse; legendum igitur, *sicut eram, stricto gladio*.'

D. L. Van Stegeren follows (pp. 301-08) with *Varia Critica*, chiefly on Plutarch. In Plut. Cim. 13, ἵππον μὲν δρόμον αἰὲ τῆς Ἑλληνικῆς ἀπέχειν θαλάττης, Cobet rightly inserts ἡμέρας, comparing Dem. 19, 273. But ἵππειος δρόμος or ἵππικὸν διάστημα was probably a recognized distance. Cf. Sol. 23: νόμον ἔγραψεν ὅπου μὲν ἐστὶ δημόσιον φρέαρ ἐντὸς ἵππικῷ χρήσθαι τούτῳ· τὸ δὲ ἵππικὸν διάστημα τεσσάρων ἦν σταδίων, and this is confirmed by other quotations. Fault is found with Cobet, who has said "ut enim in bello, sic in grammatica nihil contemni oportet, nec quisquam qui minuta haec spreverit, unquam facit in re critica operae pretium," that he never applies crasis to τὰ ὅπλα. If the passages in Aristophanes where the words are found contracted, and other analogical ones, do not establish the rule, consider that the words 'apud omnes Graecos in usu fuisse ob παράγγελμα militare. Solent enim haec iussa et παραγγέλματα omni tempore et apud omnes populos per ipsam rei naturam esse et brevissima et maxime perspicua. Credasne igitur, ut hoc utar, in Anabasi VII 1, 22 in tumultu militari ad Byzantium Xenophontem languida illa παρεγγυῆσαι, θέσθε τὰ ὅπλα? imo iussit, puto, θέσθε θῶπλα . . . ad arma apud ipsum Xenophontem est εἰς θῶπλα.' In Lysand. 2 Plutarch quotes Aristotle as τὰς μεγάλας φύσεις ἀποφαίνων μελαγχολικός, ὡς τὴν Σωκράτους καὶ Πλάτωνος καὶ Ἡρακλέους. 'Quis unquam fando audivit Herculem, qui semper bibax et edax apud Aristophanem et in fine Euripidis Alcestidis e. g. exhibetur . . . fuisse melancholicum . . . quis credat Plutarchum principem Graecorum heroum, qui Athenis adeo ut deus colebatur, post Socratem et Platonem demum nominavisse?' He is confident that we should read Περικλέους. But the passage of Aristotle to which Plutarch refers (Probl. p. 953a 27) leaves no doubt that Ἡρακλέους is the right reading. For before naming τῶν ὑστερον Εἰμπεδοκλῆς καὶ Πλάτωνος καὶ Σωκράτους καὶ ἑτέροις συγχοῖ τῶν γνωρίμων, Aristotle devotes several lines to the proof that the history of Herakles is an illustration of the rule that πάντες ὅσοι περιττοὶ γεγονάσιν ἄνδρες . . . φαίνονται μελαγχολικοὶ ὄντες.¹

¹A melancholy proof that van S. does not know what μελαγχολικός meant. Greek μελαγχολικός and Dutch *zwarmoedig*, *droefgeestig* are not the same.—B. L. G.

J. J. Hartman (pp. 309-18) contributes more *Euripidea*. These notes are chiefly on the *Bacchae*. A single specimen may be given. Bacch. 1070: Πενθέα δ' ἰδρύσας ἐλατίνων δζων ἐπι | ὀρθὸν μεθίει διὰ χερῶν βλάστημ' ἄνω | ἀτρέμα, φυλάσσω μὴ ἀναχαιτίσειέ νιν. It is argued that a branch large enough to carry Pentheus could not have been called δζος, and that since the verb ἀναχαιτίζειν 'de equo dicitur, iam nostro versu aliquid requiritur quod ad eam metaphoram ducat'; and therefore we must read ἐλατίνων δχων ἐπι.

Cobet (pp. 319-23) furnishes some notes on Longinus περὶ ὑψους. "IV 4, e libro Xenophontis affert: αἰδημονεστέρονς ἂν αὐτοῖς (Lacedaemonios) ἡγήσαιο καὶ αὐτῶν τῶν ἐν τοῖς ὈΦΘΑΛΜΟΙΣ παρθένων. Vetustissimum mendum est ὈΦΘΑΛΜΟΙΣ pro ΘΑΛΑΜΟΙΣ, id quod Longinum fugit. Rectissime dicitur αἱ ἐν τοῖς ὀφθαλμοῖς κόραι, sed pupillae in oculis non possunt παρθένου appellari. Frigide et inficete Theopompus apud Longinum ita dixit: ἐν ὀφθαλμοῖς κόρας, μὴ πόρνας, ἔχων. Absurdum fuisset ἐν ὀφθαλμοῖς παρθένους ἔχων. Dixit tamen sic Aretaëus Cappadox a Ruhnkenio laudatus: τάδε πάσχει ἅμφω τὰ εἶδεα καὶ ἡ ἐν τοῖσι ὀφθαλμοῖσι παρθένος.'

Dr. Badham (p. 325) emends Thuc. VIII 102, 2 very happily by writing: βουλόμενοι ἐκπλεῦσαι ἐς τὴν εὐρυχωρίαν καὶ τὰς τῶν πολέμιων ναῦς τὰς μὲν ἐν Ἀβύδῳ ἐκκαίδεκα ἔλαθον τῷ αἰφνιδίῳ ἐπίπλῳ, προειρημένης φυλακῆς ὅπως αὐτῶν ἀνακῶς ἐξοσσειν ἦν ἐκπλέωσιν, τὰς δὲ μετὰ τοῦ Μινδάρου ἅμα τῇ ἑφ' τὴν δίωξιν εἰδυῖς ποιούμενου, οὐ φθάνουσι πᾶσαι κτέ.

The part concludes with miscellaneous notes by Cobet, chiefly on Lysias.

PART IV.

The first article (pp. 337-54) in this number contains emendations on the tenth book of Plato's *Laws*. Many of the corrections proposed are violent, but perhaps not more so than is justified by the exceedingly corrupt state of the text, which only heroic remedies can cure. The writer has not consulted the convenience of his readers by quoting enough of the context in each case to render the proposed emendation intelligible without reference to the book itself; and has not even added the sectional letter to the page-number. Accordingly, one must read through the whole book, if one would appreciate the article; and no part of it is really available for this notice. Two of the shorter passages may, however, be quoted, as specimens of the writer's manner. "P. 893: invocati eunt (sic) Δι ἐπὶ τὴν ἀπόδειξιν [ὡς εἰσι] τὴν αὐτῶν. Ο ἀγνῖνος (ne quam aliam belluam invocem) editores!—ἐχόμενοι δὲ ὡς τινος ἀσφαλοῦς πείσματος ἐπεισβαίνωμεν εἰς τὸν νῦν λόγον. Quaero τίνος τοῦ πείσματος ἔχονται; ἡ δὴλον ὅτι αὐτῶν τῶν θεῶν; supple igitur—(ὧν) ἐχόμενοι ὡς δὴ τινος κτέ.—Pro ἀσφαλέστατα leg. ἀσφαλέστατον." P. 895e: "ἄρτιον ὀνόματι καὶ λόγῳ δίχα διαιρούμενον ἀριθμόν, προσαγορεύοντες ταῦτ' ὄν. Sic interpungas velim; quod cum feceris, ut ille de cucumi condiendo postremum praecepisse fertur, foras eiicito. Mox pro τὸ ἐαντὸ κινεῖν lege κινεῖν, et δὲ δὴ expellendum."

The next article, pp. 355-85, contains critical notes on Aristophanes, by S. A. Naber. On the *Acharnenses* he proposes in 2 to read πώμαλα for τέτταρα, which cannot be explained satisfactorily, and is inconsistent with the subsequent enumeration. In 25 he writes περὶ πρῶτον ξύλον for περὶ πρῶτον ξύλον, arguing

that we cannot suppose that the fifty *πρωτανευς* struggled with each other for the first bench, like Philocleon in *Vespae* 90, since all had the *προεδρία* alike; "sed dum quisque properabat capessere sedem, turba oriebatur intrantium *περὶ πρῶτον ξύλον*." The acc. is found in the same sense in 692: *γέροντ' ἀπολέσαι πολλὸν ἄνδρα περὶ κλειψύδραν*. He interprets 994-9, reading *προσλαβεῖν* for *προσβαλεῖν*, of the simple employments of a country life which Dicaeopolis hopes he will again enjoy when peace is secured; 'vitem seret, ficum, olivam; nihil potest esse simplicius. Sed docti interpretes non satis sibi docti videntur, nisi doctam attulerint interpretationem. Sedulo quaerunt quis sit horum verborum *duplex sensus*. *Nequitia*, inquit, *inest in allusione ad ὄρχεις*, idque ne obliviscamur, etiam bis inculcant, cum poeta *ἀμπελίδος ὄρχον* et *ἡμερίδος ὄρχον* appellaverit . . . ne oliva quidem innocenter seri poterit . . . *rursus in hoc versu obscenitas latet*. Roma locuta est."

On the *Equites*, 230-4, he denies that the words justify the interpretation of the Schol. that *οὐκ εἶχεν αὐτοῦ προσωπεῖον διὰ τὸ δεδοικέναι τοὺς σκευοποιοὺς καὶ μὴ θέλειν μήτε πλάττειν μήτε σχηματίζειν τὴν ὄψιν τοῦ Κλέωνος*. It is merely an ironical jest of the poet. "Qui histrio Cleonem agebat . . . ipso vultu totoque corporis habitu quam exactissime potuit referebat notam personam demagogi. Cleonem uno impetu omnes dum statim agnoscebant, erumpebant in cachinnos et plausum dabant. Demosthenes autem lepidissime negat, larvam satis esse similem, quam in illa comica partium distortionem omnes videbant tam esse similem, ut ovum non ovo similis esse dicerent."

In *Nubes*, 50, not understanding *ἐρίων περιουσίας*, he proposes to write *σιρῶν, ἐριουργίας*, and quotes Columella to show that such *cellae* were apt to have a bad smell, "sed putidum est in tali re veterum testimoniis uti et cavendum est ne imitemur exemplum illius Hispani, qui docte et cum cura demonstravit, pueros apud Athenienses plorare solitos fuisse, quum vapularent." On 417, *οἶνον τ' ἀπέχει καὶ γυμνασίων καὶ τῶν ἄλλων ἀνοήτων*, he does not approve the substitution of *ἀδηφαγίας* for *γυμνασίων*, though the line is quoted by Diog. La., perhaps from the second recension, with that reading (see p. 117), because "non placere poterit, si quis reputaverit in reliqua fabula voracitatis non fieri mentionem; nec tamen Herwerdenum sequar, qui *συμποσίων* rescipsit, nam nusquam video Socratem hilare convivium aversatum fuisse." Since, however, we are told in 837 and Av. 1554 that Socrates eschewed the bath, and in 992 and 1045 ff. the *Δίκαιος λόγος* condemns the bath on the ground of its enervating tendency, he proposes that *βαλανείων* should be read in this line. But Kock made the same suggestion in his ed. of 1862. On 541-2: *οὐδὲ πρεσβύτης ὁ λέγων τῇ τῇ βακτηρίᾳ τύπτει τὸν παρόντ' ἀφανίζων πονηρὰ σκώμματα*, we have a long discussion as to the point of the reference to Eupolis; and then the suggestion is made that we should read *ἀρρητ' ἢ* for *τῇ τῇ* [where the *ἢ* is hard to dispose of] and *φατίζων* for *ἀφανίζων*: "id tantum incommodum accidit quod . . . verbum *φατίζειν* nusquam in comoedia legitur." On 583: *βροντὴ δ' ἐρράγη δὲ ἀστραπῆς, δὲ Ἄρματος* is suggested, in allusion to the proverbial expression *ὅταν ἀστράψῃ δὲ Ἄρματος*. In 712, among the other sufferings inflicted on Strepsiades by *οἱ Κορίνθιοι ἐκ τοῦ σκίμποδος ἐξέρποντες*, he mentions *καὶ τὴν ψυχὴν ἐκπίνουσιν*. Naber proposes *τὴν ψωλὴν*, a substitution which was made by Brunck in *Lysistr.* 963. But he has not observed that in 719 Strepsiades describes the same affliction by the words *φροῦδῃ ψυχῇ*, which, with the substitution of *ψωλῇ*, we can hardly suppose to

have been within the competence of his tormentors. In 1138, Strepsiadēs is indignant at the rigor of his stony-hearted creditors who will not recognize as μέτρια καὶ δίκαια his proposals, ὦ δαιμόνιε, τὸ μὲν τι νυνὶ μὴ λάβης, τὸ δ' ἀναβαλοῦ μοι, τὸ δ' ἄφες. Naber quotes the explanation of G. Hermann, "qui Kockio imposuit." "Φιλόγεως sit oportet qui ad tam frigidum iocum subridere possit. Emenda: τὸ μὲν τι νυνὶ μοι λαβέ. Verbum non addam." The creditors, however, appear to have understood the matter as Hermann did; for we are told: οὐ φασὶν ποτε οὕτως ἀπολήψεσθ', ἀλλὰ λαιδοροῦσί με.

On *Vespaē* 16, Naber suggests ἐδόκουν αἰτὸν καταπτόμενον ἐς τὴν ἀγορὰν ὄραν μέγαν for μέγαν πάνν, as well as two other alterations of the passage which seem less probable. On 98, ἐν θύρᾳ Δῆμον καλόν, he shows that while there is abundant evidence that the Greeks inscribed the names of their favorites on walls and trees, there is none that they did so on doors; and accordingly he would write φιλόρῳ for θύρᾳ; and if any one objects that such a confirmed cit as Philocleon would never go outside the walls where he could see the trees so "abused," he endeavors to prove that there must have been trees in Athens itself in private grounds or public spaces. On 554, κάπειτ' εὐθὺς προσίοντι ἐμβάλλει μοι τὴν χεῖρ' ἀπαλὴν τῶν δημοσίων κεκλοφυῖαν, where ἐμβάλλει occurs between two plural verbs, he objects to the ἐμβάλλουσιν of Hirschig, and the ἐμβάλλει μοί τις of Meineke, and proposes προσίον τις ἐμβάλλει τὴν χεῖρ' ἀπαλὴν τὴν κτῆ. Some sixteen passages of the *Pax*, also, are commented on in this article.

H. van Herwerden follows, pp. 386-99, with *Conjecturae Epigraphicae* on G. Kaibel's *Epigrammata Graeca*. Two short extracts may be made. "Ὅσοι γὰρ ψυχαὶ [σεμνῶς τ' ἀγαθῶς τ'] ἐβίωσαν. Licet hoc poetarum genus nihil non sibi permittere videatur, non tamen indicta causa singuli damnandi sunt, ut arbitror. Nempe qui in hoc epigrammate reliqua probe scripsit, huic tribuere nolim cum editore vocabulum pessimae notae ἀγαθῶς pro εὖ, et potius suppleverim ὅσαι γὰρ ψυχαὶ [σεμνῶς θ' ἀγνῶς τ'] ἐβίωσαν." "In Hadriani scriptoris epigrammate reperto apud Thespias vs. 1: ὦ παῖ τοξότα Κυπρίδος λυγείης Kaibelius suspicatur Musarum sacris Thespias translatis Veneri Musarum et speciem et nominationem aliquam accessisse. Quod credat qui poterit. Mihi non persuasum est imperatorem non dedisse γλυκεῖης."

The next article, pp. 400-13, is by Cobet, entitled *Herodotea*. He uses Stein's text, 1869-71. The apparatus furnished by this editor for the three chief MSS, A of the 10th century, B of the 11th, and R of the 14th, leaves nothing to be desired; and no other authorities are needed: "caeteri codices omnes et quidquid scripturarum ex iis congestum est citra damnum abiici possunt et vel in ignem coniici." It is even matter of regret that Stein has reported all the variations he has. "In codicibus antiquissimis (id est saeculo IX, X et XI exaratis) ubique τὸ παραγεγραμμένον ἰῶτα cernitur, in minus antiquis idem ubique omittitur. Hinc farrago discrepantium lectionum nullius pretii et momenti nascitur. In A B constanter ἰῶτα additur, in R eadem constantia semper omittitur. Sexcenties annotatur χρῆζω A B, χρήζω R . . . et similia passim . . . Apage has ineptias: et omnino omnes scribarum errores, ubi de vera scriptura nulla est dubitatio. Constat inter omnes verbi ἐρχομαι imperfectum in Ionia esse ἦια, ἦιε, ἦισαν, cum omnibus compositis. Nonne absurdum est igitur III 74 pro ἦισαν afferri ex libris: ἦισαν, ἦσαν, ἦμεσαν, ἦίεσαν, ἰεσαν, ἰησαν, et εἰησαν? aut

VI 46 pro προσήιε. scribi προσήμει, προσήμει, προσήμει, et προσήμει? Cobet then proceeds to discuss the merits of the three MSS and Stein's judgment on them. "A et B duo vetustissimi tam fideliter inter se conspirant etiam in minutioribus cum perexigua tantum discrepantia, ut constet inter omnes *duos hos libros pro uno et eodem haberi posse*: 'tanta sunt inter se similitudine ut fere unius instar sint, nec tamen tanta ut alter ex altero descriptus videatur' ut rectissime iudicat Stein. Miraberis autem in libris tam antiquis tam paucas bonas et veras scripturas reperiri." The number of corrupt passages in which these MSS present the true reading is, by Stein's admission, quite small. But their excellence, Stein says, consists in the fact "quod uni ex omnibus interpolatorum temeritate fere vacui manserunt, quod quale sit infra apparebit." As to the merits of R, the opinion of the earlier critics, which Stein confesses himself to have shared, was that they were very high. Stein has convinced himself now, however, that this MS has been greatly overrated: 'quidquid unus R offert id omne est aut correctum aut erratum.' The merits of this corrector, however, are praised in such high terms by Stein that "de Valckenario aut Bentleio aut Porsono agi putes." Cobet then proceeds to show how such different opinions can have been formed about the same codex. "Derivatus est enim ex libro antiquo emendatissime scripto et longe longeque fideliori et certiore teste quam sunt A et B. Passim ille liber ipsam Herodoti manum solus servavit corruptam apud reliquos omnes. Ex illo codice fluxerunt per complures hominum aetates apographa permulta alia ex aliis propagata, quorum ultima ad nostram aetatem perdurarunt. . . Hi omnes in mendis et erroribus et lacunis ferme inter se conspirant. Optimum omnium et antiquius caeteris est Romanum exemplum." Cobet then gives a long list of manifest errors in R where A and B have the true reading. "In antiquo libro unde R propagatus est, versus erant litterarum 15-18. Deprehendi id potest III 54, ubi in R sic scriptum est: *οἱ δὲ ἐπισπόμενοι ἐκτείνοντες Λακεδαιμονίων* pro: *οἱ δὲ ἐπισπόμενοι ἐκτείνον. εἰ μὲν νῦν οἱ παρεόντες Λακεδαιμονίων*. Erat autem in vetusto codice. ΟΙΔΕΕΠΙ | ΣΗΟΜΕΝΟΙΕΚΤΕΙΝΟΝ | εἰ μὲν νῦν οἱ παρόντες | ΤΕΣ ΛΑΚΕΔΑΙΜΟΝΙΩΝ, et scriba socors omisso versu tertio inepte coniunxit *ἐπισπόμενοι ἐκτείνοντες Λακεδαιμονίων*." To show why, notwithstanding these many errors, he still regards R as "unum omnium testem optimum," he says "utar in eam rem comparatione: duo antiqui libri sunt veluti duo senes, homines frugi et graves sed rustici et ingenii obtusioris. Contra Romanus adolescentis instar est, qui nobili loco natus et divitiis affluens liberius vivit vino et amori dans ludum, sed idem lepidus, urbanus, elegans, venustus homo. Is si forte temulentus est οὐδὲν ὑγιὲς loquitur, sed ubi se collegit et ad se rediit faceti ingenii est et iucundissimi sermonis. Quem modo audivimus meras nugae deblaterantem, idem permagnum numerum optimarum lectionum solus servat, quae tantam habent *ἐνάργειαν*, ut Stein ipse longe maximam earum partem ex solo R in textum receperit." Cobet then gives some instances of this, only one of which can be here quoted. In VI 128, Clisthenes tested the suitors for the hand of Agariste in various ways: "καὶ τό γε μέγιστον ἐν τῇ συνεστίῃ διεπείρατο. Audi nunc Steinium: 'συνεστή A: συνιστή Bredovius, τῆς ἰσότησεως L. Dindorf, ipse tentabam τῇ συνιστήσιν ἐπείρατο.' Sardi venales, alius alio nequior. Quid est igitur ab Herodoto scriptum? Id quod unice verum et in Vaticano codice solo servatum est: ἐν τῇ συνεστίῃ (συνεστοί). Dialectus Ionica et vetus Attica habebat nomen *ἐστώ* id est *ὀσσία*, et *ἀπεστώ* pro *ἀπονσία*, et *εἰεστώ* pro

εὐδαιμονία et κακεστὼ pro δυστυχία et ἀεισεστὼ pro αἰώνιος οὐσία, et sic συνεστὼ pro συνουσία, id est συναναστροφή, de hominum inter se usu et consuetudine . . . Ecquis ad hanc lucem serio credere poterit συνεστοῖ, quod nusquam alibi locorum comparet, ex Graeculi correctione esse natam?" In R the fifth book is wanting, the text of which is, however, the most correct of all. Why is this? "Non omnes habebant olim Herodotum *totum* (ut nec Romani Livium) sed circumferebantur codices, quibus aut singuli libri aut pars aliqua librorum contineretur. Sic factum est ut libri nostri non ex uno eodemque fonte omnes manaverint, sed alii ex aliis interdum melioribus interdum deterioribus sint descripti." The writer, therefore, of the original of R was probably unable to obtain a copy of Book V. It is notable also that in A and B, at the end of Books V, VIII, IX, there is a stichometric number. "In caeteris libris nulla est στιχομετρία. Cur? Quia libri V et VIII et IX ex alio libro quam reliqui desumpti sunt."

But little space is left for the two remaining articles. The first of them, pp. 414-23, is by I. C. Volgraff, entitled *Lanx Saturæ*. We have here conjectural emendations of certain passages. *E. g.* in Thuc. I 5, 2, we read that piracy was no discredit, even to some of the historian's contemporaries, οἷς κόσμος καλῶς τοῦτο δρᾶν. We are told to expunge καλῶς, as a marginal comment (cf. Cobet, N. L. p. 441), and the same remedy is to be applied in Isocr. IV 158. In Thuc. I 10, 2, τῆς δυνάμεως is to be omitted; in I 134, 4, οὐπερ τοὺς κακοῦργοις is to be erased; and in III 82, 1, for ἐτοίμων we are to read ἐτόλμων. The last two have much probability. There is offered, besides an emendation of a fragment of Diphilus, one of Lucian's δνειρος ἢ Ἀλεκτρυόν, and several of Procopius *de bello Persico*.

The last article, pp. 424-48, is by Cobet on Julian. He commends in the highest terms the recent edition of Hertlein, whose only fault is that "misellos libros nullius momenti aut pretii, . . . ut testes mendaces et corruptos, tamen producendos et audiendos esse censuit." He should have regarded the *Vossianus* alone, which is at Cobet's side as he writes, and "tam anxia cura ab Editore excussus est ut nihil supersit agendum." In these notes there is not much of general interest. It is shown that Julian "immodicis laudibus extollit in coelum Constantium principem, minimi pretii hominem," speaking of his wife as γαμετὴ βασιλῆως ἀνδρείου σώφρονος συνετοῦ δικαίου χρηστοῦ καὶ πρῶτον καὶ μεγαλοψύχον, "sed veros animi sensus aperit; ἀρ' οὐκ ὀνειδίζει μοι καὶ καταγέλα τῆς μωρίας, ὅτι τὸν φονέα πατρός, ἀδελφῶν, ἀνεψιῶν, ἀπάσης ὡς ἔπος εἰπεῖν τῆς κοινῆς ἡμῶν ἐστίας καὶ συγγενείας τὸν δῆμον εἰς τοῦτο ἐθεράπευσεν;" Several passages are referred to the originals from which they are copied. "Quidquid erat in Graecia hominum elegantiorum ut Homeri carmina sic Demosthenis orationes tenebant memoriter et statim agnoscebant si quis iis lepide et scite uteretur." We have, of course, many illustrations of the barbarisms which are to be left "Juliano cum sequioribus saepius sic peccanti," as ἀμαρτήσω for ἀμαρτήσομαι, παρά for ὑπό, μή for οὐ, etc.; and as to Julian's style in general, "quam sit Julianus loquax et verbosus δις καὶ τρις ταῦτ' εἰσάγων operae pretium est semel diligenter animadvertere." After giving examples of his garrulity ("quae est, ut libere dicam, μακρὰ καὶ διωλόγιος φλυνάρι"), and a long list of synonyms "nulla elegantia cumulatorum," he concludes: "possem multo plura de genere hoc congerere, sed, ut Juliani verbis utar: τί πέρας ἡμῖν ἐστὶ τῶν λόγων εἰ ταῦτα μήπω σε πείθει;"

C. D. MORRIS.

CORRESPONDENCE.

I find that my criticisms on Max Müller's views on *Septentrio* have been partially anticipated by Mr. Ch. Ploix in the *Mémoires de la Société de la Linguistique*, I, pp. 377 sq., a paper which I have only just seen.

J. P. POSTGATE.

Trinity College, Cambridge, April 11, 1883.

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The publications of Messrs. Macmillan & Co. are to be had of Messrs. Cushings & Bailey, 262 W. Baltimore St., Baltimore.

Prof. J. A. Harrison, of Washington and Lee University, Lexington, Va., is engaged in editing a series of Anglo-Saxon texts, to be called a 'Library of Anglo-Saxon Poetry.' He will be assisted in the work by the co-operation of Profs. March, of Lafayette Coll., Robert Sharp, of Louisiana, and other scholars.

The series will embrace the more important pieces of Anglo-Saxon verse, and each piece will be accompanied by an English Glossary for students. *Beowulf*, the first volume of the series, is nearly ready. Messrs. Ginn & Heath are the publishers.

We desire to call attention to the following work, of which the prospectus has been received: "*Exempla Scripturae Visigoticae XL tabulis expressa*" ediderunt Paulus Ewald et Gustavus Loewe. Heidelbergae, 1883, apud Gustavum Koester. The manuscripts, found in Spanish libraries, of which specimen pages to the number of forty are here given in facsimile, range from the sixth to the twelfth century, and great care has been taken in the selection, so that the series gives a very complete illustration of the development of this most important and difficult character. The reputation of the editors is a sufficient guaranty for the accuracy with which the work has been done.

American scholars, for whom the access to Latin manuscripts is attended with so great difficulties, ought to welcome with especial interest the publication of such facsimiles, and American libraries ought to contribute liberally to the support of such undertakings.